#### **ROUX ASSOCIATES INC**



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April 26, 2002

Mr. Gardiner Cross
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, New York 12233-7017

Re: Hot Spot Delineation and Gasholder Characterization Results 2<sup>nd</sup> Avenue Former MGP Site Brooklyn, New York

Dear Mr. Cross:

Roux Associates, Inc. (Roux Associates) has completed the hot spot delineation and gasholder characterization at the 2nd Avenue former MGP Site in Brooklyn, New York (Site). The work was performed pursuant to the Voluntary Cleanup Agreement (VCA) between the Unites States Postal Service (USPS) and the New York State Department of Environmental Conservation (NYSDEC) dated March 15, 2001 (Index Number A2-0430-0009). The fieldwork was performed from January through March 2002. This report is being submitted to the NYSDEC in accordance with the VCA.

## The objectives of the work were to:

- delineate the lateral and vertical extent of soil (i.e., fill material) above the meadow mat layer at four areas (i.e., Areas A, B, C, and D) of the Site using the following criteria:
  - total polycyclic aromatic hydrocarbon (PAH) concentrations greater than 1,000 milligrams per kilogram (mg/kg), or
  - mobile coal tar:
- confirm that clean fill material is present within the east side of Gasholder #1;
- further characterize the fill material quality conditions at RI Boring 38 adjacent to the exterior of Gasholder #2; and
- characterize the fill material quality conditions adjacent to the exterior of Gasholder #3 and from beneath its bottom to the meadow mat layer.

The scope of work to achieve the above objectives was intended to be performed in accordance with the December 5, 2001 Revised Remedial Work Plan (RRWP) and

Remedial Work Plan Supplement (RWPS). However, several modifications to the scope of work were made (see the Field Methodology discussion for further details) based on the field conditions encountered. All scope of work modifications were verbally approved by the NYSDEC prior to implementation.

A description of the field methodology is provided below. The results of the field inspection activities and analytical results are discussed following the field methodology discussion.

### FIELD METHODOLOGY

A description of the field methods performed is provided below.

## Hot Spot Delineation

A total of 66 soil borings were sampled at Areas A, B, C, and D and adjacent to the exterior walls of former Gasholders #2 and #3 from land surface to the meadow mat layer (where present), which ranges in depth from 4 feet (ft) to 17 ft below land surface (bls). If the meadow mat layer was not present, the boring was terminated between 20 ft to 24 ft bls. The soil boring locations are shown in Plate 1.

The borings were sampled using the Geoprobe<sup>TM</sup> method or the drive and wash method. As stated in the RRWP, the fill material samples were intended to be collected using the Geoprobe<sup>TM</sup> method; however, due to the subsurface obstructions encountered that prohibited the further use of the Geoprobe<sup>TM</sup> rig, a scope of work modification was made. This modification included the implementation of the drive and wash method. This method included the collection of fill material samples using a 2-inch or 3-inch diameter split-spoon core barrel from land surface to the top of the obstructions. Steel casing was then installed into the obstruction to prevent the migration of free product (if present) from above the obstruction to below the obstruction. A roller bit was then used to drill through the obstruction. After the obstruction was penetrated, a second, smaller steel casing was installed through the original casing and into the fill material below the obstruction. Sampling of the fill material continued to the meadow mat layer. After each sample was collected, the casing was cleaned out of any remaining fill material using a combination of the roller bit and potable water to the top of the next sampling interval.

Samples were collected at 4 ft intervals using the Geoprobe™ method and at 2 ft intervals using the drive and wash method. Regardless of the drilling method utilized, each 1 ft sample interval was inspected for lithology and impacts (i.e., staining, odors, and free product), and screened in the field for volatile organic compounds (VOCs) using a photoionization detector (PID). Based on the field inspection results, the 1 ft interval (from the intervals 4 ft to 8 ft bls, 8 ft to 12 ft bls, and 12 ft to 16 ft bls) determined to contain the highest degree of impacts was submitted to the laboratory for analysis. Samples were not collected from land surface to 4 ft bls for laboratory analysis because this fill material was previously determined by others to be clean.

Three samples from each boring were submitted for laboratory analysis from the majority of borings, but fewer than three samples were submitted to the laboratory from several borings as a result of obstructions encountered (based on the use of the Geoprobe<sup>TM</sup> rigprior to the switch in drilling methods), poor sample recovery, or the presence of the meadow mat layer at a depth of less than 12 ft bls. Each sample was analyzed for PAHs using the United States Environmental Protection Agency (USEPA) Method 8270.

Each soil boring was backfilled using cuttings and/or a bentonite grout.

All downhole equipment was decontaminated by steam cleaning immediately after each mobilization to the Site prior to the start of a new phase of work, between each boring, and after completion of the work. The spilt-spoon core barrels used during the drive and wash sampling activities were decontaminated using a non-phosphate soap and potable water rinse. The Geoprobe<sup>TM</sup> samples were collected in new, acetate sleeves, and were disposed after the collection of a sample.

Cuttings, decontamination water, and the water used to clean out the casing during the implementation of the drive and wash method were containerized in 55-gallon capacity drums onsite.

The boring locations were surveyed by a New York State-licensed surveyor, Control Point Associates, Inc., Watchung, New Jersey.

#### Gasholder Characterization

In accordance with the RRWP, soil borings were drilled and samples collected to confirm that clean fill material is present in the east side of Gasholder #1 and to characterize the quality of the fill material between the bottom of Gasholder #3 and the underlying meadow mat layer. Three borings (GH-1A, GH-1B and GH-1C) were completed in Gasholder #1 and two borings (GH-3A and GH-3B) were completed through Gasholder #3 (Plate 1). Each boring was drilled using the drive and wash method as described for the hot spot delineation borings, except for Boring GH-1B, which was drilled using the hollow-stem auger method. Samples were collected from each boring using a 2-ft long split-spoon sampler and each 1 ft interval was inspected for lithology and impacts (i.e., staining, odors, and free product), and screened in the field for total VOCs using a PID. Selected samples were submitted to the laboratory and analyzed for VOCs using the USEPA Method 8260 and semivolatile organic compounds (SVOCs), including PAHs, using USEPA Method 8270.

Each gasholder is discussed separately in greater detail below.

### Gasholder #1

The USPS reportedly used the eastern portion of Gasholder #1 as a boiler room. A reinforced concrete wall that runs from north to south approximately 50 ft east of the

Pathmark building wall divides the gasholder. The equipment was later removed and the space filled with clean fill material by others.

Split-spoon samples were continuously collected from land surface to the expected bottom of the gasholder (reported by others to be about 20 ft bls) at Borings GH-1A, GH-1B and GH-1C. Each boring encountered refusal at approximately 17 ft bls. Because no impacts were identified from any 1-ft interval in GH-1A and GH-1B, a composite sample was then collected from the bottom 4 ft of each boring and submitted to the laboratory for analysis in accordance with the RRWP. Based on the occurrence of black staining in the fill material at Boring GH-1C, a sample was collected from 16 ft to 17.5 ft bls and submitted to the laboratory for analysis. Due to limited recovery, a sample could not be collected for laboratory analysis at the 1 ft interval in GH-1C, but instead was collected from a 1.5 ft interval.

It was concluded that the refusal encountered at approximately 17 ft bls was the floor of the former boiler room (i.e., a false bottom), not the bottom of the holder. Drilling and sampling then continued through this false bottom at Boring GH-1A until refusal was encountered at 24 ft bls, which is the bottom of the gasholder. Due to limited recovery, samples could not be collected for laboratory analysis at the 1 ft interval, but were collected from 2-foot intervals (18 ft to 20 ft bls and 22 ft to 24 ft bls) and submitted to the laboratory for analysis.

## Gasholder #3

Two borings were completed through Gasholder #3 (GH-3A and GH3-B) to determine the presence or absence of coal tar contamination between the bottom of the gasholder and the underlying meadow mat layer. Gasholder #3, which is constructed of steel and concrete, does not extend down to the meadow mat layer. Split-spoon samples were collected near the bottom of this gasholder to confirm the presence of product (i.e., coal tar) before drilling through it. Prior to Roux, Langan Engineering completed a Geotechnical boring through the holder in November 1998.

The steel bottom of the gasholder was encountered at approximately 6 ft bls. A steel casing spin shoe was used to cut into the steel and the casing was set about ¾-inch into the steel. A roller bit was then used to drill through the steel and into the underlying concrete. Bentonite chips were then placed into the casing to prevent the migration of free product from above the gasholder bottom to below the gasholder. After allowing the bentonite chips to hydrate, the roller bit was used to drill through the remainder of the concrete. After the steel and concrete were penetrated, a second, smaller steel casing was installed through the original casing and into the underlying fill material. Samples of the underlying fill material were then collected to the meadow mat layer. Samples were collected at Boring GH-3A from 8 ft to 10 ft bls, 10 ft to 12 ft bls, and 10 ft to 13 ft bls. Samples were collected at Boring GH-3B from 7 ft to 9 ft bls and 9 ft to 11 ft bls. None of these samples were submitted to the laboratory for analysis as a result of poor sample recovery (i.e., the volume of material was insufficient for laboratory analysis).

#### RESULTS

A summary of the results including a description of the Site geology, data usability, field inspection results, and fill material quality is provided below.

# Site Geology

The Site is underlain by clean fill material from land surface to approximately 4 ft bls. This material is comprised of fine to coarse brown sand, little gravel, trace silt, wood, brick, and concrete. Underlying the clean fill material is a second type of fill material present from approximately 4 ft to 17 ft bls. This fill material is comprised of fine to coarse brown to black stained sand, some silt and gravel, trace coal, wood, brick, and concrete. Underlying the second fill material is the meadow mat layer that is comprised of peat, silt, and clay. The meadow mat layer was not encountered in 11 of the 66 borings.

The geologic logs for selected borings (i.e., endpoint borings) are provided in Attachment 1. The end point boring geologic logs were provided because these are the key logs that define the lateral and vertical extent of the hot spots for remediation.

## Data Usability Summary Report (DUSR)

A DUSR was performed on the analytical data from the endpoint borings of Hot Spot Areas A, B, C, and D and borings sampled adjacent to the exterior of Gasholders #2 and #3. The DUSR was performed by Data Validation Services, North Creek, New York. The DUSR was performed in accordance with the USEPA Region II Validation Standard Operating Procedures, the USEPA National Functional Guidelines for Data Review, and the NYSDEC DUSR guidelines (revised 1997).

The results of the DUSR indicate that most of the analyte values and reporting limits were usable as reported by the laboratory. The DUSR is provided in Attachment 2.

## Field Inspection Results

A brief discussion of the field inspection results is provided below.

## Hot Spot Areas A, B, C, and D

The results of the field inspection indicate that black staining, odors, and/or product were identified in the fill material at varying depths below 4 ft bls throughout the majority of Hot Spot Areas A, B, C, and D. The PID readings of total VOCs ranged from not detected (ND) up to 1735 parts per million (ppm).

### Gasholders

Gasholder #1 — The results of the field inspection indicate that impacts were not identified in any of the samples that were collected above the false bottom, except for occasional non-petroleum odors at boring GH-1A and black staining that was observed immediately above the false bottom in GH-1C.

The results of the field inspection indicate that black staining, odors, and free product were identified in all samples that were collected from below the false bottom. PID readings ranged from 7.3 ppm to 179 ppm in GH-1A, from 2.9 ppm to 12.3 ppm in GH-1B, and from ND to 43.1 ppm in GH-1C

Gasholder #2 – The results of the field inspection indicate that black staining, odors, and product were identified at Boring GH-21 (SB-8), located approximately 15 ft southeast of Gasholder #2 (Plate 1). The PID readings of total VOCs ranged from 0.4 ppm up to 62.4 ppm.

Gasholder #3 – The results of the field inspection indicate that product was identified immediately above the bottom of Gasholder #3 from approximately 6 ft to 6.5 ft bls at Boring GH-3A and from 5 ft to 6 ft bls in GH-3B. The meadow mat layer was encountered below the gasholder at 10 ft bls and 9 ft bls at Borings GH-3A and GH-3B, respectively. Wood debris was encountered at Borings GH-3A and GH-3B, with black staining present on the wood at Boring GH-3A below the Gasholder. The wood is thought to be the form that was originally used to construct the concrete holder. No fill material was recovered at either boring. Traces of free product were observed below the Gasholder in GH-3B, but it was concluded that the product was brought down from within the Gasholder during drilling because the observed product was present on the outside of the peat core, but did not penetrate the core. Bentonite, which was placed in the casing before drilling through the bottom of the gasholder, was also observed in the sample collected immediately below the gasholder. The borings were backfilled with grout and abandoned.

These observations at borings GH-3A and GH3-B are consistent with the results from an independent investigation previously performed through the middle of Gasholder #3 by Langan Engineering in 1998. A copy of Langan's boring (LB-7) is attached.

The results of the field inspection indicate that black staining, odors, and product were identified at Boring GH-31 (SB-7), located approximately 10 ft south of Gasholder #3. The PID readings of total VOCs ranged from not detected up to 595 ppm.

## Fill Material Quality Results

A brief discussion of the fill material quality results is presented below. The analytical data for the fill material collected outside the gasholders were compared to the Site criteria of 1,000 mg/kg of total PAH concentrations.

#### Hot Spot Areas A, B, C, and D

A brief description of the fill material quality for Hot Spot Areas A, B, C, and D is presented below. The lateral and vertical extent of the hot spots has been delineated, and is shown in Plate 2. The NYSDEC has reviewed Plate 2 at the April 2, 2002 meeting, and as stated in their April 5, 2002 letter, "the Department agreed to the excavation limits as indicated in the April 2, 2002 updated plan sheets" (i.e., Plate 2).

Area A – PAHs were detected in the fill material at concentrations that exceeded the Site criteria (Table 1). The lateral and vertical extent of the Area A hot spot is shown in color in Plate 2. The lateral extent of the Area A hot spot is delineated by the following endpoint borings: RI 33; RI 35; ASW-1 (SB-2); ANW-1 (SB-3); AN-4; AN-9; AN-9N; AN-11; and AN-12. The vertical extent of the Area A hot spot varies in depth from 4 ft to 15 ft bls, and is delineated by the following endpoint samples: AS-2; ASW-2; ANE-1 (SB-5); AN-3; and AN-6.

It is important to note that the northeastern portion of this hot spot only extends to a depth of 4 ft bls (shown in green color in Plate 2). An approximate 1 ft thick concrete slab is present in this area. The samples analyzed from below this slab (ANE-3 and ANE-1 [SB-5]) indicate that PAHs were not detected above the Site criteria. Additionally, the hot spot in the northwestern portion of Area A only extends to a depth of 11 ft bls (shown in tan color in Plate 2). An approximate 1.5 ft thick concrete slab is present in this area. The samples analyzed from below this slab (AN-6, AN-6N, and AN-6S) indicate that PAHs were not detected above the Site criteria.

Areas B and C - Although Areas B and C were considered separate hot spot areas as defined by AKRF Engineering, P.C. during the Remedial Investigation, Areas B and C represent one continuous shallow hot spot based on the recent fill material quality results.

PAHs were detected in the fill material at concentrations that exceeded the Site criteria (Table 1). The lateral and vertical extent of the Areas B and C hot spot is shown in color in Plate 1. The lateral extent of the Areas B and C hot spot is delineated by the following endpoint borings: BNE-E-2; BS-2; RI 24; RI 1; CN-5; CN-6; CN-7; CN-8; CN-10N; and CN-12. The vertical extent of the Areas B and C hot spot varies in depth from 8 ft to 16 ft bls, and is delineated by the following endpoint samples: CNE-3; CW-1 (SB-14); CB-1; SB-15-SW; BNW-2; and BS-1 (SB-9).

It is important to note that the west central portion of this hot spot only extends to a depth of 8 ft bls (shown in green color in Plate 2), except for a small area surrounding Boring CW-1 (SB-14). An approximate 1.5 ft thick concrete slab is present in this area, except at Boring CW-1. The samples analyzed from below this slab (CB-1 and CW-2) indicate that PAHs were not detected above the Site criteria. The hot spot surrounding Boring CW-1 (SB-14) extends to a depth of 16 ft bls.

Area D - PAHs were detected in the fill material at concentrations below the Site criteria (Table 1). Therefore, the lateral extent of the Area D hot spot is limited to the area immediately surrounding RI Boring 54, as delineated by the endpoint borings DN-2 and DS-2 (Plate 2).

Based on the fill material analytical data and field inspection results (i.e., trace product), the NYSDEC agreed that excavation in Area D was not necessary. Instead, the NYSDEC has requested that two additional product collection wells be installed in this area to capture any mobile product, if present, above the meadow mat layer. Because the

meadow mat is not present in this area, the screen lengths of two proposed adjacent deep collection wells will be extended to capture shallow mobile product, if present.

## Gasholders

Gasholder #1 – Eight VOCs were detected in the fill material samples that were collected above the former USPS boiler-room floor (i.e., false bottom) at borings GH-1A, GH-1B, and GH-1C. A summary of the VOCs detected is provided in Table 2. Ethylbenzene was detected at 11,000 micrograms per kilogram (µg/kg, or parts per billion, ppb) in the sample that was collected near the bottom of the gasholder from 16 ft to 17.5 ft bls at GH-1C representing the highest concentration of VOCs. Total VOCs in the fill material from these borings ranged from 59 µg/kg to 26,340 µg/kg.

Nineteen SVOCs were detected in the fill material samples that were collected above the false bottom at Borings GH-1A, GH-1B, and GH-1C. Phenanthrene was detected at 31,000 µg/kg in the sample from 16 ft to 17.5 ft bls at GH-1C representing the highest concentration of SVOCs. Total SVOCs in the fill material from these three borings ranged from 19,690 µg/kg to 159,910 µg/kg.

In the material below the false bottom, which will be removed from the gasholder, six VOCs were detected at boring GH-1A. Total Xylenes were detected at 620,000  $\mu$ g/kg in the sample from 22 ft to 24 ft bls at GH-1A representing the highest concentration of VOCs. Total VOCs in the fill material from this boring ranged from 207,000  $\mu$ g/kg to 1,871,000  $\mu$ g/kg.

Eighteen SVOCs were detected in the material below the false bottom at boring GH-1A. Naphthalene was detected at 9,200,000 μg/kg in the sample from 22 ft to 24 ft bls at GH-1A representing the highest concentration of SVOCs. Total SVOCs in the fill material from this boring ranged from 4,967,000 μg/kg to 24,928,000 μg/kg.

Gasholder #2 – PAHs were not detected in the fill material from Boring GH-21 (SB-8) at concentrations that exceed the Site criteria (Table 1), located approximately 15 ft southeast of Gasholder #2 (Plate 1). Boring GH-21 (SB-8) is considered an endpoint boring.

Gasholder #3 – Fill material was not encountered below the bottom of Gasholder #3. Although some product was observed, it was concluded that the product was brought down from within the holder during drilling. The borings were backfilled with grout and abandoned.

PAHs were detected in the fill material at concentrations that exceed the Site criteria at Boring GH-31 (SB-7) (Table 1), located approximately 10 ft south of Gasholder #3. The lateral and vertical extent is delineated by Endpoint Borings SB-7-N2 and SB-7-S2 (Plate 2).

Based on the fill material analytical data, the NYSDEC agreed that excavation in the area at Boring GH-31 (SB-7) was not necessary. Instead, the NYSDEC has requested that two shallow product collection wells be installed in this area to capture the product identified at Boring GH-31 (SB-7).

Please call if you have any questions or require additional information.

Sincerely,

ROUX ASSOCIATES, INC.

George A. Tyers

Senior Hydrogeologist

Joseph D. Duminuco

Vice President

Attachments

cc: Rockie Gajawani, Forest City Ratner Companies Greg Lowe, Forest City Ratner Companies

Table 1. Summary of Polycyclic Aromatic Hydrocarbons Detected in Fill Material, Former 2nd Avenue Manufactured Gas Plant, Brooklyn, New York.

	Sample Designation:	AN2	AN2	AN2	ANE3	ANE3	ANE3	ANW2	AN3	AN3	AN3	AS2
Parameter	Sample Date: 01	1/09/02	01/09/02	01/09/02	01/21/02	01/21/02	01/21/02	01/08/02	01/21/02	01/21/02	01/21/02	01/08/02
(Concentrations in µg/kg)	Sample Depth (ft bls): 4	4.5-5.5	11-12	12-16	4.5-6	8-12	14-15	5-6	5-6	8-9	14-15	6-8
-Methylnaphthalene	98	00008	850 J	53000	560000	63000	760 U	310000	220000 Ј	160000	1400000	250000
cenaphthene	60	500000	1200 J	32000	490000	65000	730 J	290000	220000 J	94000	810000.	210000
cenaphthylene	54	54000 J	330 U	3300 Ј	26000 J	3500 J	300 U	19000 J	41000 J	5600 J	45000 J	17000 J
nthracene	21	10000 J	1900 J	13000 J	180000	25000	320 U	110000 J	530000	32000 J	330000 J	81000 J
Senzo[a]anthracene	10	00000 J	3200 J	5700 J	73000 J	11000 J	400 U	51000 J	230000 J	16000 J	140000 J	34000 J
enzo[a]pyrene	8:	33000 J	3400 J	4800 J	63000 J	9700 J	430 U	41000 J	98000 J	13000 J	110000 J	27000 J
enzo[b]fluoranthene	37	7000 U	2100 J	2400 U	28000 J	4400 J	1000 U	19000 U	77000 J	6500 J	43000 U	13000 J
enzo[g,h,i]perylene	2	26000 J	1700 J	1600 J	24000 J	3900 J	460 U	14000 Ј	95000 J	5400 J	39000 J	11000 J
enzo[k]fluoranthene	5.	59000 J	3400 J	3900 J	46000 J	7100 J	1100 U	28000 J	160000 J	9400 J	89000 J	18000 J
Chrysene	11	10000 J	3600 J	6400 J	74000 J	11000 J	460 U	51000 J	230000 J	17000 J	140000 Մ	34000 J
ibenzo[a,h]anthracene	17	7000 U	530 U	1100 U	7200 U	970 U	490 U	8900 U	22000 U	2700 U	21000 U	5700 U
luoranthene	23	30000 J	8100 J	13000 J	180000	26000	820 J	99000 J	550000	32000 J	270000 J	73000 J
luorene	26	60000 J	870 J	15000 J	240000	30000	540 U	120000 J	790000	43000 J	370000 J	92000 J
ndeno[1,2,3-cd]pyrene	2	24000 J	1600 J	1400 J	23000 J	3700 J	490 U	11000 J	65000 J	4400 J	34000 J	8200 J
laphthalene	18	800000	1800 J	99000	810000	80000	1900 J	980000	870000	270000	1700000	550000
henanthrene	7	770000	7400 J	44000	580000	80000	1100 J	370000	1700000	110000	1000000	270000
yrene	30	00000 J	8200 J	18000 J	240000	35000	780 J	140000 J	870000	46000 J	400000	95000 J
								1.00	٠			
	otal PAH Concentrations: 56	606000	49320	314100	3637000	458300	5330	2634000	6746000	864300	6877000	1783200

g/kg - Micrograms per kilogram

bls - Feet below land surface

<sup>-</sup> Estimated value

<sup>-</sup> Analyte not detected

AH - Polycyclic Aromatic Hydrocarbons

ata highlighted in Bold represent total PAH concentrations that

exceed the Site criteria of 1,000,000  $\mu$ g/kg

Table 1. Summary of Polycyclic Aromatic Hydrocarbons Detected in Fill Material, Former 2nd Avenue Manufactured Gas Plant, Brooklyn, New York.

01-70											
Sample Designation:	: AS2	ASE2	ASE2	ASW2	ASW2	BNE-E-2	BNE-E-2	BNW-2	BNW-2	BNW-2	BW-2
Sample Date:	: 01/08/02	01/08/02	01/08/02	01/08/02	01/08/02	01/11/02	01/11/02	01/10/02	01/10/02	01/10/02	01/10/02
Sample Depth (ft bls):	8-12	7-8	8-12	7-8	8-12	6-7	8-10	6-8	8-12	12-13	7-8
	270000	380000	5400 J	570000	680 U	2900 J	16000	230000	1500000	680000	290000
	250000	230000	3800 J	270000	∉360 U	23000	16000	130000 J	650000 J	330000	150000
	20000 J	20000 J	390 U	17000 J	270 U	2500 J	520 J	7400 J	36000 J	15000 J	16000 J
	110000	100000 J	1900 J	100000 J	290 U	9800	5700 J	50000 J	300000 J	150000 J	60000 J
	. 55000 J	56000 J	1200 J	46000 J	360 U	5300 J	4300 J	28000 J	160000 J	80000 J	32000 J
	49000 J	44000 J	1000 J	36000 J	390 U	3600 J	4000 J	19000 J	110000 J	62000 J	26000 J
	21000 J	20000 U	1300 U	23000 U	920 U	1800 J	1700 J	19000 U	77000 U	36000 U	9700 J
	22000 Ĵ	16000 J	600 U	13000 J	410 U	2200 J	2900 J	8300 U	34000 U	26000 J	6900 J
	37000 J	37000 Ј	1400 U	27000 J	940 U	2400 J	3500 J	19000 U	96000 J	48000 J	20000 J
	56000 J	57000 J	1300 J	46000 J	410 U	7100 J	5000 J	34000 J	180000 J	92000 J	34000 J
	5500 U	9500 U	630 U	11000 U	440 U	720 J	530 U	8800 U	36000 U	17000 U	4300 U
	120000	120000 J	2600 J	90000 J	810 J	6900 J	6500 J	43000 J	240000 J	130000 J	60000 J
	110000	100000 J	1800 J	110000 J	480 U	8600 J	5400 J	57000 J	300000 J	150000 Մ	68000 J
	16000 J	13000 J	630 U	11000 U	440 U	1800 J	2300 J	8800 U	36000 U	22000 J	6100 J
	320000	770000	10000 Ј	1400000	780 U	16000	1200 J	510000	3000000	1400000	560000
	390000	350000	6500 J	340000	1000 J	33000	21000	180000	980000	510000	220000
	150000	130000 J	3000 J	130000 J	700 J	16000	15000	76000 J	480000 I	280000 J	97000
	1					, A					\$
Total PAH Concentrations	: 1996000	2423000	38500	3195000	2510	143620	111020	1364400	8032000	3975000	1655700
	Sample Date: Sample Depth (ft bls)	Sample Date: 01/08/02 Sample Depth (ft bls): 8-12  270000 250000 20000 J 110000 55000 J 49000 J 21000 J 22000 J 37000 J 56000 J 5500 U 120000 110000 16000 J 320000 390000 1500000	Sample Date: 01/08/02 01/08/02 Sample Depth (ft bls): 8-12 7-8  270000 380000 250000 230000 20000 J 20000 J 110000 100000 J 55000 J 56000 J 49000 J 44000 J 21000 J 20000 U 22000 J 16000 J 37000 J 37000 J 56000 J 57000 J 5500 U 9500 U 120000 120000 J 110000 120000 J 16000 J 13000 J 320000 770000 390000 350000 150000 J 30000 J	Sample Date: 01/08/02 01/08/02 01/08/02 Sample Depth (ft bls): 8-12 7-8 8-12  270000 380000 5400 J 250000 230000 3800 J 20000 J 20000 J 390 U 110000 100000 J 1900 J 55000 J 56000 J 1200 J 49000 J 44000 J 1000 J 21000 J 20000 U 1300 U 22000 J 16000 J 600 U 37000 J 37000 J 1300 J 56000 J 57000 J 1300 J 5500 U 9500 U 630 U 120000 120000 J 2600 J 110000 100000 J 1800 J 16000 J 13000 J 630 U 320000 770000 10000 J 390000 350000 6500 J 150000 130000 J 30000 J	Sample Date: 01/08/02 01/08/02 01/08/02 01/08/02 Sample Depth (ft bls): 8-12 7-8 8-12 7-8  270000 380000 5400 J 570000 250000 250000 230000 3800 J 270000 20000 J 20000 J 390 U 17000 J 110000 100000 J 1900 J 100000 J 55000 J 56000 J 1200 J 46000 J 49000 J 44000 J 1000 J 36000 J 21000 J 20000 U 1300 U 23000 U 22000 J 16000 J 600 U 13000 J 37000 J 37000 J 16000 J 600 U 13000 J 56000 J 57000 J 1300 J 46000 J 56000 J 57000 J 1300 J 46000 J 56000 J 57000 J 1300 J 46000 J 5500 U 9500 U 630 U 11000 U 120000 J 120000 J 120000 J 13000 J 11000 U 120000 J 13000 J 13000 J 13000 J 16000 J 13000 J 130000 J	Sample Date: 01/08/02 01/08/02 01/08/02 01/08/02 01/08/02 Sample Depth (ff bls): 8-12 7-8 8-12 7-8 8-12  270000 380000 5400 J 570000 680 U 250000 J 20000 J 390 U 17000 J 270 U 110000 100000 J 1900 J 100000 J 290 U 55000 J 56000 J 1200 J 46000 J 360 U 49000 J 44000 J 1000 J 36000 J 390 U 21000 J 390 U 17000 J 360 U 21000 J 20000 U 1300 U 23000 U 920 U 22000 J 16000 J 600 U 13000 U 920 U 22000 J 16000 J 600 U 13000 J 410 U 37000 J 37000 J 1400 U 27000 J 940 U 5500 U 9500 U 630 U 11000 U 440 U 120000 J 120000 J 2600 J 90000 J 810 J 110000 J 10000 J 13000 J 480 U 16000 J 13000 J 630 U 11000 U 440 U 16000 J 13000 J 13000 J 16000 J 16000 J 13000 J 46000 J 480 U 16000 J 13000 J 630 U 11000 U 440 U 320000 770000 10000 J 1800 J 11000 U 780 U 390000 350000 6500 J 340000 1000 J 150000 J 150000 J 30000 J 700 J	Sample Date:         01/08/02         01/08/02         01/08/02         01/08/02         01/08/02         01/08/02         01/08/02         01/08/02         01/08/02         01/11/02           Sample Depth (ft bls):         8-12         7-8         8-12         7-8         8-12         6-7           270000         380000         5400 J         570000         680 U         2900 J         2900 J           250000         230000         3800 J         270000         360 U         23000           20000 J         20000 J         390 U         17000 J         270 U         2500 J           110000         100000 J         1900 J         10000 J         290 U         9800           55000 J         56000 J         1200 J         46000 J         360 U         5300 J           49000 J         44000 J         1000 J         36000 J         390 U         3600 J           21000 J         20000 U         1300 U         23000 U         920 U         1800 J           22000 J         16000 J         600 U         13000 J         410 U         200 J           37000 J         37000 J         1300 J         46000 J         410 U         7100 J           5500 U         9500	Sample Date:         01/08/02         01/08/02         01/08/02         01/08/02         01/08/02         01/08/02         01/08/02         01/10/02         01/11/02	Sample Date:         01/08/02         01/08/02         01/08/02         01/08/02         01/08/02         01/08/02         01/10/02	Sample Date:         01/08/02         01/08/02         01/08/02         01/08/02         01/08/02         01/10/02         01/11/02         01/11/02         01/10/02         01/10/02           Sample Depth (ft bls):         8-12         7-8         8-12         7-8         8-12         6-7         8-10         6-8         8-12           270000         380000         5400 J         570000         680 U         2900 J         16000         230000         150000 J           250000         230000         3800 J         270000         360 U         23000         16000 J         36000 J           110000         100000 J         2900 U         17000 J         270 U         2500 J         520 J         7400 J         36000 J           55000 J         56000 J         1200 J         46000 J         360 U         5300 J         4300 J         28000 J         16000 J           49000 J         44000 J         1000 J         36000 U         390 U         3600 J         4000 J         19000 J         11000 J           21000 J         20000 J         16000 J         300 U         13000 J         360 U         1800 J         1700 J         19000 J         77000 U           22000 J         16000 J	Sample Date:         01/08/02         01/08/02         01/08/02         01/08/02         01/08/02         01/11/02         01/11/02         01/10/02

g/kg - Micrograms per kilogram

bls - Feet below land surface

<sup>-</sup> Estimated value

<sup>-</sup> Analyte not detected

AH - Polycyclic Aromatic Hydrocarbons

ata highlighted in Bold represent total PAH concentrations that

exceed the Site criteria of 1,000,000 µg/kg

Table 1. Summary of Polycyclic Aromatic Hydrocarbons Detected in Fill Material, Former 2nd Avenue Manufactured Gas Plant, Brooklyn, New York.

4	•										
	Sample Designation:	BW-2	CB-1	CB-1	CN-2	CN2A	CN2A	CN2A	CN3	CN3	CN3
Parameter	Sample Date: 0	01/10/02	01/17/02	01/21/02	01/16/02	01/17/02	01/17/02	01/17/02	01/23/02	01/23/02	01/23/02
(Concentrations in µg/kg)	Sample Depth (ft bls):	8-8.5	6-8	10.5-11.5	6-8	5-6	11-12	12-14	12-16	6-7	8-12
				•							
-Methylnaphthalene		130000	1100000	6800 J	44000000	2800000	15000	2900000	880000	860 U	5200 J
cenaphthene		81000	530000	3800 J	18000000 J	1300000 J	8000 J	1300000	200000 J	460 U	2700 J
cenaphthylene		4300 J	82000 J	350 J	3800000 J	130000 J	550 J	210000 J	73000 J	340 U	400 J
Anthracene		30000 J .	260000 J	1400 J	7500000 J	530000 J	4100 J	670000 J	200000 J	2000 J	1800 J
enzo[a]anthracene		18000 յ	150000 J	910 J	3500000 J	280000 J	5300 J	350000 J	150000 J	5600 J	990 J
Benzo[a]pyrene		15000 J	140000 J	860 J	2800000 J	210000 J	5100 J	310000 J	99000 J	6000 J	900 J
Benzo[b]fluoranthene		5300 J	60000 J	940 U	2300000 U	200000 U	4900 J	130000 J	71000 J	4500 J	1200 U
Benzo[g,h,i]perylene		7400 J	75000 J	420 U	1000000 J	87000 U	4800 J	170000 J	68000 J	3600 J	520 U
Benzo[k]fluoranthene		9100 J	99000 J	970 U	2300000 U	200000 U	8000 J	280000 J	99000 J	5100 J	1200 U
Chrysene		20000 J	160000 J	940 J	3600000 J	280000 J	6100 J	360000 J	150000 J	5900 J	990 J
Dibenzo[a,h]anthracene		2200 U	26000 J	450 U	1100000 U	92000 U	540 U	42000 U	24000 U	890 J	550 U
luoranthene		28000 J	290000 J	1700 J	7900000 J	620000 J	9000 J	680000 J	380000 J	13000	2400 J
luorene		31000 J	300000 J	2000 J	10000000 J	690000 J	4800 J	800000	190000 J	610 U	2100 J
ndeno[1,2,3-cd]pyrene		5900 J	67000 J	450 U	1100000 U	92000 U	4700 J	150000 J	59000 J	3600 J	550 U
laphthalene		280000	2100000	14000	87000000	5900000	40000	5800000	2100000	980 U	18000
henanthrene		110000	830000	4800 J	27000000	1800000	14000	2100000	700000	5300 J	6000 J
yrene		70000	510000	2000 J	10000000 J	830000 J	8600 J	1100000	350000 J	10000	2600 J
			. *								
	Total PAH Concentrations:	845000	6779000	39560	226100000	15370000	142950	17310000	5769000	65490	44080
<del></del>							<del></del>				

g/kg - Micrograms per kilogram

bls - Feet below land surface

<sup>-</sup> Estimated value

<sup>-</sup> Analyte not detected

AH - Polycyclic Aromatic Hydrocarbons

ata highlighted in Bold represent total PAH concentrations that

exceed the Site criteria of 1,000,000 µg/kg

Table 1. Summary of Polycyclic Aromatic Hydrocarbons Detected in Fill Material, Former 2nd Avenue Manufactured Gas Plant, Brooklyn, New York.

				*						1				
		Sample	Designation:	CNE3	CNE3	CNE3	CNW3	CNW3	CNW3	CW-2	DN2	DN2	DN2	DS2
Parameter			Sample Date:	01/22/02	01/22/02	01/22/02	01/23/02	01/23/02	01/23/02	01/16/02	01/23/02	01/23/02	01/23/02	01/22/02
(Concentrations in µg/kg)		Sample I	Depth (ft bls):	7-8	8-10	15-16	6-7	9-10	12-16	12-12.5	6-8	8-9_	12-14	6-8
					<u></u>		, "							
-Methylnaphthalene			•	780000	520000	4800000	12000 J	340000	4000000	31 U	6400 J	11000	5900 J	14000
cenaphthene				520000	390000	2000000	29000	180000	1600000 J	19 J	4400 J	4800 J	4100 J	6100 J
cenaphthylene				110000 J	74000 J	370000 J	9900 J	18000 J	220000 Ј	12 U	290 U	340 U	270 U	540 J
nthracene			the state of	260000 J	200000	1100000 J	8600 J	76000 J	740000 J	15 J	810 J	720 J	740 J	2600 J
enzo[a]anthracene				160000 J	120000 J	540000 J	7300 J	43000 J	390000 J	. 17 U	390 U	. 520 J	370 U	1100 J
enzo[a]pyrene	· . · · · .			140000 J	100000 J	400000 J	14000 J	33000 J	340000 J	18 U	420 U	500 U	400 U	680 J
enzo[b]fluoranthene				68000 J	38000 J	200000 U	8000 J	13000 J	210000 U	43 U	990 U	1200 U	950 U	910 U
enzo[g,h,i]perylene				51000 J	46000 J	130000 J	13000 J	15000 J	160000 J	19 U	440 U	530 U	420 U	410 U
enzo[k]fluoranthene				88000 J	73000 J	300000 J	11000 Ј	27000 J	230000 J	44 U	1000 U	1200 U	970 U	930 U
hrysene		:		160000 J	120000 J	570000 J	9900 J	45000 J	380000 J	19 U	440 J	530 U	420 U	1200 J
oibenzo[a,h]anthracene		1		18000 U	12000 J	95000 U	2700 J	4400 U	100000 U	20 U	470 U	560 U	450 U	430 U
luoranthene				330000	240000	1100000 J	11000 J	89000	790000 J	25 U	800 J	820 J	690 J	2700 J
luorene				290000 J	220000	1200000 J	14000 J	76000 J	820000 J	- 22 U	1900 J	1700 J	1700 Ј	2800 J
ideno[1,2,3-cd]pyrene				43000 J	34000 J	110000 J	9700 J	12000 J	120000 J	20 U	470 U	560 U	450 U	430 U
laphthalene				1300000	730000	11000000	130000	590000	9400000	46 J	34000	71000	32000	31000
henanthrene				870000	660000	3800000	27000	290000	2700000	62 J	3600 J	3200 J	3400 J	9400
утепе				400000	360000	1400000 J	21000	140000	1200000 J	29 J	1100 J	1400 J	1100 Ј	3300 Ј
				:				*						
		Total PAH C	oncentrations:	5570000	3937000	28820000	338100	1987000	23090000	171	53450	95160	49630	75420

g/kg - Micrograms per kilogram

bls - Feet below land surface

exceed the Site criteria of 1,000,000 µg/kg

<sup>-</sup> Estimated value

<sup>-</sup> Analyte not detected

AH - Polycyclic Aromatic Hydrocarbons

ata highlighted in Bold represent total PAH concentrations that

Table 1. Summary of Polycyclic Aromatic Hydrocarbons Detected in Fill Material, Former 2nd Avenue Manufactured Gas Plant, Brooklyn, New York.

the state of the s		*							
	Sample Designa	tion: DS2	DS2	AS-1 (SB-1)	AS-1 (SB-1)	AS-1 (SB-1)	ASW-1 (SB-2)	ASW-1 (SB-2)	ASW-1 (SB-2)
Parameter	Sample I	Date: 01/22/02	01/22/02	01/02/02	01/02/02	01/02/02	01/02/02	01/02/02	01/02/02
(Concentrations in μg/kg)	Sample Depth (ft	bls): 8-12	12-16	6-7	8-10	12-16	7-8	9-10	12-16
		·						*	
Methylnaphthalene		13000	5600 J	160000	25000	18000	110000	24000	3900 J
cenaphthene		6400 J	2800 J	95000	12000	8900 J	52000	12000	1900 J
cenaphthylene		1400 J	920 J	6300 J	900 յ	660 J	3600 J	1000 J	260 U
nthracene		3400 Ј	1100 J	43000 J	4500 J	2800 J	21000 J	6100 J	800 J
enzo[a]anthracene		2200 J	1400 J	25000 J	2700 J	2000 J	10000 J	3100 J	360 U
enzo[a]pyrene		1700 J	1100 J	20000 J	2100 J	490 U	7800 J	2400 J	380 U
enzo[b]fluoranthene		930 U	890 U	8800 J	1000 J	1200 U	4300 U	1100 J	910 U
enzo[g,h,i]perylene		640 Ј	400 U	7500 J	430 U	530 U	1900 U	370 U	410 U
enzo[k]fluoranthene		1500 Ј	1100 J	14 <b>0</b> 00 J	1700 J	1200 U	4400 U	1700 J	930 U
ırysene		2400 J	1500 J	26000 J	2800 J	2100 J	9800 J	3100 J	410 U
ibenzo[a,h]anthracene		440 U	420 U	2400 U	460 U	560 U	2000 U	390 U	430 U
noranthene		4400 J	2700 J	46000	5200 J	4100 J	19000 J	5600 J	530 U
uorene		3600 J	1300 J	54000	6500 J	4400 J	22000 J	5900 J	480 U
deno[1,2,3-cd]pyrene		540 J	420 U	6300 J	460 U	560 U	2000 U	390 U	430 U
aphthalene		28000	13000	310000	34000	23000	290000	44000	9600
nenanthrene		13000	4400 J	140000	15000	11000	68000	19000	2600 J
yrene		5700 J	2600 J	71000	7600 J	5500 J	31000 J	9100	450 U
		-		•		. 1 -			
	Total PAH Concentrat	ions: 87880	39520	1032900	121000	82460	644200	138100	18800

g/kg - Micrograms per kilogram

bls - Feet below land surface

exceed the Site criteria of 1,000,000  $\mu g/kg$ 

<sup>-</sup> Estimated value

<sup>-</sup> Analyte not detected

AH - Polycyclic Aromatic Hydrocarbons

ata highlighted in Bold represent total PAH concentrations that

Table 1. Summary of Polycyclic Aromatic Hydrocarbons Detected in Fill Material, Former 2nd Avenue Manufactured Gas Plant, Brooklyn, New York.

			and the second second					
	Sample Designation: A	ANW-1 (SB-3)	ANW-1 (SB-3)	ANW-1 (SB-3)	AN-1 (SB4)	AN-1 (SB4)	AN-1 (SB4)	ANE-1 (SB5)
Parameter	Sample Date:	01/02/02	01/02/02	01/02/02	01/03/02	01/03/02	01/03/02	01/21/02
(Concentrations in µg/kg	Sample Depth (ft bls):	6-8	8-12	12-16	4-5	8-9	12-16	4-4.5
-Methylnaphthalene		6500 J	8500 J	2900 Մ	600000	100000	14000	3100000 J
cenaphthene		29000	31000	11000	230000 J	46000 J	6300 J	170000 U
cenaphthylene		2000 J	1600 J	530 J	11000 U	1600 U	590 J	130000 U
nthracene		14000 J	14000 J	4600 J	95000 J	16000 Ј	2500 J	140000 U
enzo[a]anthracene		7600 J	7000 J	2400 J	46000 J	7300 J	1500 J	170000 U
enzo[a]pyrene		6100 J	5600 J	1900 J	15000 U	2400 U	420 U	180000 U
enzo[b]fluoranthene		2900 J	2200 U	860 U	36000 U	5700 U	990 U	430000 U
enzo[g,h,i]perylene		1000 U	1000 U	390 U	16000 U	2500 U	440 U	190000 U
enzo[k]fluoranthene		3900 J	2300 U	890 U	37000 U	5800 U	1000 U	450000 U
Chrysene		7400 J	6800 J	2400 J	47000 J	7500 J	1500 J	190000 U
ibenzo[a,h]anthracene		1100 U	1100 U	410 U	17000 U	2700 U	470 U	210000 U
luoranthene		14000 J	13000 J	4400 J	110000 J	17000 J	3100 J	250000 U
luorene		15000 J	14000 J	4600 J	120000 J	20000 J	3100 J	230000 U
ndeno[1,2,3-cd]pyrene		1100 U	1100 U	410 U	17000 U	2700 U	470 U	210000 U
laphthalene		96000	91000	30000	1600000	250000	38000	17000000
henanthrene		43000	43000	14000	330000	57000	9100	270000 U
yrene		20000	21000	7300 J	140000 Ј	25000 J	4700 J	220000 U
								• •
State of the state of the state of	Total PAH Concentrations:	267400	256500	86030	3318000	545800	84390	20100000

g/kg - Micrograms per kilogram

bls - Feet below land surface

<sup>-</sup> Estimated value

<sup>-</sup> Analyte not detected

AH - Polycyclic Aromatic Hydrocarbons

ata highlighted in Bold represent total PAH concentrations that

exceed the Site criteria of 1,000,000 µg/kg

Table 1. Summary of Polycyclic Aromatic Hydrocarbons Detected in Fill Material, Former 2nd Avenue Manufactured Gas Plant, Brooklyn, New York.

Sample Designation: A	ANE-1 (SB5)	ANE-1 (SB5)	ANE-1 (SB5)	ASE-1 (SB6)	ASE-1 (SB6)	ASE-1 (SB6)	GH-31 (SB7)	GH-31 (SB7)
Parameter Sample Date:	01/21/02	01/21/02	01/21/02	01/03/02	01/03/02	01/03/02	01/04/02	01/04/02
(Concentrations in µg/kg) Sample Depth (ft bls):	5-7	8-12	_12-13	5-6	9-10	13-14	7-8	9-10
			<del></del>					
Methylnaphthalene	60000	23000	7100 J	860000	100000	4400 Ј	10000	330000
cenaphthene	15000 J	3100 J	1300 J	450000	59000	3100 J	4900 J	99000 J
cenaphthylene	1400 U	680 U	340 U	23000 J	3200 J	360 U	240 U	47000 J
nthracene	5600 J	1300 J	370 U	160000 J	23000 J	1300 J	2000 Ј	60000 J
enzo[a]anthracene	2800 J	930 U	470 U	82000 J	13000 J	500 U	940 J	37000 J
enzo[a]pyrene	2100 J	990 U	500 U	58000 J	1900 U	530 U	360 U	7200 U
enzo[b]fluoranthene	4800 U	2300 U	1200 U	26000 J	4600 U	1300 U	840 U	17000 U
enzo[g,h,i]perylene	2300 U	1100 U	530 U	10000 U	2100 U	560 U	380 U	7700 U
enzo[k]fluoranthene	4900 U	2400 U	1200 U	42000 J	4700 U	1300 U	870 U	18000 U
hrysene	3100 Ј	1100 U	530 U	83000 J	13000 J	560 U	890 J	38000 Ĵ
ibenzo[a,h]anthracene	2300 U	1100 U	560 U	11000 U	2200 U	600 U	400 U	8100 U
luoranthene	7000 J	2000 Ј	680 U	170000 J	25000 J	1800 J	2100 J	75000 J
luorene	7500 J	1800 Ј	620 U	200000 J	28000 J	660 U	2500 J	77000 J
ideno[1,2,3-cd]pyrene	2300 U	1100 U	560 U	11000 U	2200 U	600 U	400 U	8100 U
aphthalene	210000	110000	31000	1600000	160000	6200 J	32000	880000
henanthrene	21000 J	4900 J	1300 J	570000	79000	4600 J	7200 J	230000
yrene	9100 Ј	2400 J	660 J	220000	38000 J	2400 J	2800 J	99000 J
Total PAH Concentrations:	343200	148500	41360	4544000	541200	23800	65330	1972000

ykg - Micrograms per kilogram

bls - Feet below land surface

<sup>-</sup> Estimated value

<sup>-</sup> Analyte not detected

AH - Polycyclic Aromatic Hydrocarbons

ata highlighted in Bold represent total PAH concentrations that

exceed the Site criteria of 1,000,000 µg/kg

Table 1. Summary of Polycyclic Aromatic Hydrocarbons Detected in Fill Material, Former 2nd Avenue Manufactured Gas Plant, Brooklyn, New York.

<del></del>	Sample Designation: (	GH-31 (SB7)	SB7-N2	SB7-S2	GH-21 (SB8)	GH-21 (SB8)	GH-21 (SB8)	BS-1 (SB9)	BW-1 (SB10)
Parameter	Sample Date:	01/04/02	01/09/02		-	01/04/02	01/04/02	01/04/02	01/04/02
(Concentrations in µg/kg)	Sample Depth (ft bls):	12-13	4-5	4-6	7-8	10-11	13-14	5-6	7-8
-Methylnaphthalene		580000	32000	75000	99000	26000	20000	900000	320000
cenaphthene		170000 J	31000	22000	80000	16000	12000	530000	140000 J
cenaphthylene		78000 J	14000 J	7200 J	7900 J	1100 J	900 J	43000 J	13000 J
nthracene		110000 J	23000	18000 J	44000	7400 J	5300 J	230000 J	61000 J
enzo[a]anthracene		78000 J	26000	11000 J	28000 J	4600 J	3100 J	120000 J	34000 J
enzo[a]pyrene		61000 J	22000	7700 J	24000 J	3700 J	470 U	16000 ປ	7600 U
enzo[b]fluoranthene		22000 U	10000 Ј	3000 J	9100 J	1500 J	1100 U	39000 U	18000 U
enzo[g,h,i]perylene		9800 U	15000 J	3800 J	9500 J	580 U	500 U	17000 U	8100 U
enzo[k]fluoranthene		23000 U	21000	4000 յ	19000 Ј	2800 J	1200 U	40000 U	18000 U
hrysene		83000 J	31000	13000 J	30000 J	5200 J	3300 J	120000 J	34000 J
ibenzo[a,h]anthracene		10000 U	4400 Ј	1000 U	1800 U	620 U	530 U	19000 U	8500 U
luoranthene		140000 J	41000	13000 J	50000	8100 J	5300 J	230000 J	56000 J
luorene		140000 J	21000	15000 J	49000	7800 J	5300 J	260000 J	65000 J
ideno[1,2,3-cd]pyrene		10000 U	12000 J	2300 J	8100 J	620 U	530 U	19000 U	8500 U
aphthalene		1300000	120000	68000	120000	39000	29000	2100000	710000
henanthrene		410000	64000	60000	150000	26000	17000	800000	210000
yrene		210000	74000	30000	81000	13000	8900 1	350000	91000 J
								*	
	Total PAH Concentrations:	3360000	561400	353000	808600	162200	110100	5683000	1734000

<sup>3/</sup>kg - Micrograms per kilogram

bls - Feet below land surface

<sup>-</sup> Estimated value

<sup>-</sup> Analyte not detected

AH - Polycyclic Aromatic Hydrocarbons

ata highlighted in Bold represent total PAH concentrations that

exceed the Site criteria of 1,000,000 µg/kg

Table 1. Summary of Polycyclic Aromatic Hydrocarbons Detected in Fill Material, Former 2nd Avenue Manufactured Gas Plant, Brooklyn, New York.

Sampl	e Designation: BW-1 (SB1	0) BW-1 (SB10)	BNW-1 (SB11)	BNW-1 (SB11)	BNE-1 (SB12)	BNE-1 (SB12)	BE-1 (SB13)
Parameter	Sample Date: 01/04/02	01/04/02	01/04/02	01/04/02	01/04/02	01/04/02	01/07/02
(Concentrations in µg/kg) Sample	Depth (ft bls): 9-10	14-15	7-8	11-12	6-8	8-10	6-7
					·		
-Methylnaphthalene	270000	8500	100000	290000	640 U	660 U	40000
cenaphthene	120000	4900 J	43000	140000 J	340 U	640 J	13000 J
cenaphthylene	10000 J	450 J	4000 J	12000 J	. 250 ປ	260 U	4700 J
nthracene	49000 J	2200 J	17000 J	63000 J	270 U	280 U	3700 J
enzo[a]anthracene	26000 J	1200 J	7600 J	34000 J	340 U	350 U	4000 J
enzo[a]pyrene	3700 U	370 U	1900 U	10000 U	370 U	380 U	4100 J
enzo[b]fluoranthene	8700 บ	880 U	4500 U	24000 U	870 U	900 U	2500 J
enzo[g,h,i]perylene	3900 U	390 U	2000 U	11000 U	390 U	400 U	3600 J
enzo[k]fluoranthene	9000 U	900 U	4700 U	24000 U	890 U	920 U	3300 J
hrysene	27000 J	1700 J	12000 J	35000 J	390 U	400 U	4300 J
ibenzo[a,h]anthracene	4100 U	420 U	2100 U	11000 U	410 U	430 U	1100 U
luoranthene	42000 J	1700 J	10000 J	63000 J	500 U	520 U	6400 J
huorene	55000 J	2300 Ј	22000 J	67000 Ј	460 U	470 U	6300 J
ndeno[1,2,3-cd]pyrene	4100 U	420 U	2100 U	11000 U	410 U	430 U	2200 J
aphthalene	560000	16000	170000	640000	730 U	1300 J	130000
henanthrene	160000	7700	64000	210000	550 U	570 U	14000 J
yrene	79000	3300 J	22000 J	92000 J	430 U	450 U	9000 J
					. 1		
Total PAH (	Concentrations: 1398000	49950	471600	1646000	0	1940	251100

g/kg - Micrograms per kilogram

bls - Feet below land surface

<sup>-</sup> Estimated value

<sup>-</sup> Analyte not detected

AH - Polycyclic Aromatic Hydrocarbons

ata highlighted in Bold represent total PAH concentrations that

exceed the Site criteria of 1,000,000 µg/kg

Table 1. Summary of Polycyclic Aromatic Hydrocarbons Detected in Fill Material, Former 2nd Avenue Manufactured Gas Plant, Brooklyn, New York.

							*	
Sample Designation	: BE-1 (SB13)	CW-1 (SB14)	CW-1 (SB14)	CW-1 (SB14)	SB15	SB-15 SW	SB-15 SW	SB-15 SW
Sample Date	: 01/07/02	01/07/02	01/07/02	01/07/02	01/07/02	01/23/02	01/23/02	01/23/02
Sample Depth (ft bls)	:10-12	7-8	8-12	13-14	6-7	6-7	8-12	15-16
	43000	1400000	500000	1200000	1300000	170000	130000	1400000
	64000	530000	200000	540000	580000	43000 J	37000 J	530000 J
	5700 J	280000 J	81000 J	92000 J	160000 J	6000 J	5100 Մ	58000 J
	33000	330000 J	110000 J	220000 J	280000 J	22000 J	18000 J	210000 J
	28000	160000 J	51000 J	110000 J	140000 J	16000 J	13000 J	140000 Ј
	23000 J	140000 J	43000 J	96000 J	120000 J	13000 J	11000 J	100000 J
	9800 J	64000 J	18000 U	47000 U	52000 U	8700 Ù	5900 J	74000 U
	10000 J	60000 J	17000 J	35000 J	37000 J	6700 J	6700 J	48000 J
	15000 J	96000 J	32000 J	72000 J	82000 J	8900 U	8000 J	77000 Ј
	28000	170000 J	53000 J	120000 J	140000 J	17000 J	16000 J	160000 J
	1400 U	23000 U	8700 U	22000 U	25000 U	4100 U	2100 U	35000 U
	44000	360000 J	110000 J	240000 J	280000 J	24000 J	22000 J	230000 J
	25000 J	370000 J	120000 J	270000 J	320000 J	31000 J	24000 J	260000 J
	8500 J	45000 J	13000 J	26000 J	30000 J	4700 J	5100 J	37000 J
	3400 J	3200000	1100000	2700000	2900000	340000	250000	3300000
	100000	1200000	390000	860000	1000000	95000	81000	860000
	71000	460000	140000 J	320000 J	400000 J	48000 J	41000	410000 J
						•		
Total PAH Concentrations	s: 511400	8865000	2960000	6901000	7769000	836400	673800	7820000
	Sample Date Sample Depth (ft bls)	Sample Date: 01/07/02 Sample Depth (ft bls): 10-12  43000 64000 5700 J 33000 28000 23000 J 9800 J 10000 J 15000 J 28000 1400 U 44000 25000 J 8500 J 3400 J 100000 71000	Sample Date: 01/07/02 01/07/02 Sample Depth (ft bls): 10-12 7-8  43000 1400000 64000 530000 5700 J 280000 J 33000 330000 J 28000 160000 J 23000 J 140000 J 9800 J 64000 J 15000 J 96000 J 15000 J 96000 J 28000 170000 J 1400 U 23000 U 44000 360000 J 25000 J 370000 J 8500 J 45000 J 3400 J 3200000 100000 1200000 71000 460000	Sample Date: 01/07/02 01/07/02 01/07/02 Sample Depth (ft bls): 10-12 7-8 8-12  43000 1400000 500000 64000 530000 200000 5700 J 280000 J 81000 J 33000 330000 J 110000 J 28000 160000 J 51000 J 23000 J 140000 J 43000 J 9800 J 64000 J 18000 U 10000 J 60000 J 17000 J 15000 J 96000 J 32000 J 15000 J 96000 J 32000 J 28000 170000 J 53000 U 4400 U 23000 U 8700 U 44000 360000 J 110000 J 25000 J 370000 J 120000 J 8500 J 45000 J 13000 J 3400 J 320000 1100000 100000 1200000 390000 71000 460000 J 140000 J	Sample Date:         01/07/02         01/07/02         01/07/02         01/07/02         01/07/02           Sample Depth (ft bls):         10-12         7-8         8-12         13-14           43000         1400000         500000         1200000           64000         530000         200000         540000           5700 J         280000 J         81000 J         92000 J           33000         330000 J         110000 J         220000 J           28000         160000 J         51000 J         110000 J           9800 J         64000 J         18000 U         47000 U           10000 J         60000 J         17000 J         35000 J           15000 J         96000 J         32000 J         72000 J           28000         170000 J         53000 J         120000 J           1400 U         23000 U         8700 U         22000 U           44000         360000 J         110000 J         240000 J           25000 J         370000 J         120000 J         270000 J           8500 J         45000 J         13000 J         26000 J           3400 J         3200000         1100000         2700000           100000         1200000	Sample Date: 01/07/02   01/07/0	Sample Date: 01/07/02   01/07/0	Sample Date: 01/07/02

g/kg - Micrograms per kilogram

bls - Feet below land surface

<sup>-</sup> Estimated value

J - Analyte not detected

AH - Polycyclic Aromatic Hydrocarbons

lata highlighted in Bold represent total PAH concentrations that

exceed the Site criteria of 1,000,000 µg/kg

Table 1. Summary of Polycyclic Aromatic Hydrocarbons Detected in Fill Material, Former 2nd Avenue Manufactured Gas Plant, Brooklyn, New York.

	Sample Designation: (	CE-1 (SB17)	CN-1 (SB18)	DS-1 (SB19)	DS-1 (SB19)	DN-1 (SB20)	DN-1 (SB20)	DN-1 (SB20)	AN-10
Parameter	Sample Date:	01/07/02	01/07/02	01/07/02	01/07/02	01/07/02	01/07/02	01/07/02	03/13/02
(Concentrations in µg/kg)	Sample Depth (ft bls):	5-6	5-6	6-8	11-12	7-8	8-12	14-15	14-16
	s in the state of								
-Methylnaphthalene		2600000	7300000	710 U	170000	22000	660 U	750 U	660 U
cenaphthene		1300000	3300000 J	900 J	110000	29000	350 U	2600 J	360 U
cenaphthylene		190000 Ј	560000 J	280 U	12000 J	520 U	260 U	290 U	260 U
inthracene		530000 J	1400000 J	310 U	45000	27000	280 U	320 U	280 U
lenzo[a]anthracene		270000 J	620000 J	380 U	21000 J	24000	350 U	400 U	360 U
lenzo[a]pyrene		240000 J	530000 J	410 U	18000 J	18000	380 U	430 U	380 U
tenzo[b]fluoranthene		98000 U	440000 U	970 U	7800 J	15000 J	900 U	1000 U	900 U
lenzo[g,h,i]perylene		82000 J	200000 U	430 U	6500 Ј	12000 J	400 U	460 U	400 U
enzo[k]fluoranthene		170000 J	450000 U	990 U	12000 J	16000	920 U	1000 U	920 U
'hrysene		290000 J	670000 J	430 U	21000 J	23000	400 U	460 U	400 U
ibenzo[a,h]anthracene		46000 U	210000 U	460 U	2200 U	4000 J	420 U	480 U	430 U
luoranthene		580000 J	1300000 J	560 U	43000	56000	520 U	590 U	520 U
luorene		620000 J	1600000 Ј	510 U	51000	22000	470 U	540 U	470 U
ideno[1,2,3-cd]pyrene		63000 J	210000 U	460 U	4900 J	9500 J	420 U	480 U	430 U
faphthalene		5600000	17000000	810 U	210000	61000	750 U	6200 Ј	760 U
henanthrene		2000000	5100000	610 U	160000	100000	570 U	640 U	570 U
yrene		780000 J	1900000 Ј	480 U	58000	46000	450 U	510 U	450 U
To	otal PAH Concentrations:	15315000	41280000	900	950200	484500	0	8800	0

g/kg - Micrograms per kilogram

bls - Feet below land surface

<sup>-</sup> Estimated value

<sup>-</sup> Analyte not detected

AH - Polycyclic Aromatic Hydrocarbons

ata highlighted in Bold represent total PAH concentrations that

exceed the Site criteria of 1,000,000 µg/kg

Table 1. Summary of Polycyclic Aromatic Hydrocarbons Detected in Fill Material, Former 2nd Avenue Manufactured Gas Plant, Brooklyn, New York.

			·		<u> </u>				<del> </del>
	Sample Designation:	AN-10	AN-10	AN-11	AN-11	AN-11	AN-12	AN-12	AN-12
Parameter	Sample Date:	03/13/02	03/13/02	03/19/02	03/19/02	. 03/19/02	03/19/02	03/19/02	03/19/02
(Concentrations in µg/kg)	Sample Depth (ft bls):	7-8	8-10	10-12	13.5-14.5	7-8	10-12	12-13	4-5
	<del></del>								
:-Methylnaphthalene		680 U	680 U	850 U	1200 U	920 U	780 U	690 U	600 U
\cenaphthene		370 U	370 U	1200 J	670 U	1700 J	470 J	550 J	320 U
cenaphthylene		270 U	270 U	520 J	490 U	360 U	310 U	270 U	990 J
Anthracene		290 U	290 U	2000 J	1700 J	2400 J	410 J	310 J	660 J
Benzo[a]anthracene		370 U	370 U	3500 J	1900 J	4000 J	890 J	440 J	1400 J
lenzo[a]pyrene		390 U	390 U	3400 J	1600 J	3700 J	800 J	400 U	1600 J
lenzo[b]fluoranthene		930 U	930 U	2400 J	1700 U	2700 J	1100 U	940 U	1000 J
Benzo[g,h,i]perylene		410 U	410 U	2100 Ј	750 U	2100 J	470 U	420 U	1300 J
Benzo[k]fluoranthene		950 U	950 U	3200 J	1700 U	3500 J	1100 U	970 U	1600 J
Chrysene		410 U	410 U	4900 J	2600 J	5800 J	1200 J	580 J	2200 J
Dibenzo[a,h]anthracene		440 U	440 U	550 U	800 U	590 U	500 U	450 U	390 U
luoranthene		540 U	540 U	7500 J	5400 J	9600 J	1700 J	880 J	2200 J
luorene		490 U	490 U	1100 J	890 ป	1600 J	560 U	500 U	430 U
ndeno[1,2,3-cd]pyrene		440 U	440 U	1800 J	800 U	1900 J	500 U	450 U	1100 J
Japhthalene		2500 J	2100 J	970 U	1400 U	1000 U	890 U	1900 J	690 U
'henanthrene		590 U	620 J	7800 J	7100 J	11000 J	1500 J	1100 Ј	2000 J
'yrene		460 U	460 U	8300 J	5300 J	8800 J	1900 J	1200 J	3200 J
						V S			
	Total PAH Concentrations:	2500	2720	49720	25600	58800	8870	6960	19250
	<del>~ ,</del>			·· · · · · · · · · · · · · · · · · · ·					

g/kg - Micrograms per kilogram

<sup>:</sup> bls - Feet below land surface

<sup>-</sup> Estimated value

J - Analyte not detected

<sup>&#</sup>x27;AH - Polycyclic Aromatic Hydrocarbons

Data highlighted in Bold represent total PAH concentrations that exceed the Site criteria of 1,000,000 µg/kg

Table 1. Summary of Polycyclic Aromatic Hydrocarbons Detected in Fill Material, Former 2nd Avenue Manufactured Gas Plant, Brooklyn, New York.

	· · · · · · · · · · · · · · · · · · ·		and the second second						
	Sample Designation:	AN-4	AN-4	AN-4	AN-5	AN-5	AN-6	AN-6	AN-6
Parameter	Sample Date:	02/07/02	02/07/02	02/07/02	02/08/02	02/08/02	02/19/02	02/19/02	02/19/02
(Concentrations in µg/kg)	Sample Depth (ft bls):	10-12	14-16	4-6	13-15	4-6	6-8	10.5-11.5	13-15
?-Methylnaphthalene		1600 J	920 Ј	33000 J	220000	1000 U	260000	340000 J	12000
Acenaphthene		5800	2800 J	150000	300000	530 U	65000 J	140000 J	35000
Acenaphthylene		330 រី	320 J	7000 J	33000 J	840 J	160000 J	250000 J	1700 J
Inthracene		2300 J	5400 Ј	56000	140000 Ј	600 J	180000 J	300000 J	14000
3enzo[a]anthracene		1900 J	5800 J	30000 J	68000 J	2100 J	220000	280000 J	8400 J
Benzo[a]pyrene		1700 J	5800 J	25000 J	58000 J	2800 J	180000 J	220000 J	6900 J
3enzo[b]fluoranthene		980 J	3900 J	9700 J	23000 J	2500 J	82000 J	79000 J	2800 J
3enzo[g,h,i]perylene		270 U	3300 J	11000 J	17000 J	1900 J	91000 J	110000 Ј	3900 J
Benzo[k]fluoranthene		1200 Ј	4400 J	16000 J	40000 J	2800 J	100000 J	150000 Ј	4400 J
Chrysene		2000 J	6500 J	30000 J	76000 J	2500 J	320000	390000 J	8400 J
Dibenzo[a,h]anthracene		280 U	910 J	2100 U	11000 U	640 U	46000 J	39000 J	. บ .
luoranthene		3500 J	14000	52000	140000 J	4300 J	280000	400000 J	15000
luorene		2200 J	2300 J	55000	160000 J	710 U	210000 J	520000	14000
ndeno[1,2,3-cd]pyrene		280 U	2600 J	9000 J	14000 J	1600 Ј	78000 J	78000 J	3000 J
Japhthalene		5400	2000 J	140000	720000	1100 U	250000	1400000	50000
'henanthrene		9300	19000	240000	490000	1700 J	910000	1700000	65000
'yrene		4700 J	15000	74000	200000	3500 J	780000	830000	23000
			Table 1				•		2
	Total PAH Concentrations:	42910	94950	937700	2699000	27140	4212000	7226000	267500

g/kg - Micrograms per kilogram

<sup>:</sup> bls - Feet below land surface

<sup>-</sup> Estimated value

J - Analyte not detected

AH - Polycyclic Aromatic Hydrocarbons

<sup>)</sup>ata highlighted in Bold represent total PAH concentrations that

exceed the Site criteria of 1,000,000 µg/kg

Table 1. Summary of Polycyclic Aromatic Hydrocarbons Detected in Fill Material, Former 2nd Avenue Manufactured Gas Plant, Brooklyn, New York.

AN-6N	AN-6N	AN-6N	AN-6S	AN-6S	AN-6S	AN-7	AN-7
02/28/02	02/28/02	02/28/02	02/28/02	02/28/02	02/28/02	03/08/02	03/08/02
13.5-15	4-6	8-10	10-11.5	13-14	4-6	10.5-11.5	6-8
	<u></u>						
3300 J	2700000	1000000	150000 J	1700 J	2400000	120000 J	30000
1900 J	140000 Ј	72000 J	48000 J	3400 Ј	230000 J	150000 J	4500 J
270 U	160000 J	130000 J	62000 J	290 U	340000 J	210000	15000 J
1400 J	270000 J	190000 J	89000 J	480 J	560000 J	300000	17000
660 J	390000 J	170000 J	87000 J	480 J	650000 J	290000	26000
390 U	250000 J	130000 J	67000 J	420 U	540000 J	190000	16000
940 U	130000 J	53000 J	29000 J	1000 U	270000 J	77000 J	7800 J
420 U	180000 J	88000 J	34000 J	450 U	380000 J	110000 J	13000 J
960 U	180000 J	80000 J	42000 J	1000 U	330000 J	95000 J	9900 J
830 J	570000	240000	130000 Ј	640 Ј	850000 J	330000	28000
440 U	25000 U	12000 U	9000 U	480 U	47000 U	42000 J	5000 J
2100 J	640000	270000	140000 Մ	1200 J	1100000	320000	24000
1400 J	520000	270000	160000 J	1200 J	710000 J	410000	15000 J
440 U	120000 J	61000 J	24000 J	480 U	270000 J	78000 J	10000 J
12000	2500000	1100000	540000	12000	3600000	570000	18000
5300 J	3300000	1300000	650000	2200 J	3800000	1200000	66000
2900 J	1400000	600000	270000	1200 J	2000000	700000	60000
		4					
31790	13450000	5754000	2522000	24500	18030000	5192000	365200
	02/28/02 13.5-15 3300 J 1900 J 270 U 1400 J 660 J 390 U 940 U 420 U 960 U 830 J 440 U 2100 J 1400 J 440 U 12000 5300 J 2900 J	02/28/02 02/28/02 13.5-15 4-6  3300 J 2700000 1900 J 140000 J 270 U 160000 J 1400 J 270000 J 660 J 390000 J 390 U 250000 J 940 U 130000 J 420 U 180000 J 960 U 180000 J 830 J 570000 440 U 25000 U 2100 J 640000 1400 J 520000 440 U 120000 J 12000 2500000 5300 J 3300000 2900 J 1400000	02/28/02         02/28/02         02/28/02           13.5-15         4-6         8-10           3300 J         2700000         1000000           1900 J         140000 J         72000 J           270 U         160000 J         130000 J           1400 J         270000 J         190000 J           660 J         390000 J         170000 J           390 U         250000 J         130000 J           940 U         130000 J         53000 J           420 U         180000 J         88000 J           960 U         180000 J         80000 J           830 J         570000         240000           440 U         25000 U         12000 U           2100 J         640000         270000           440 U         120000 J         61000 J           12000         2500000         110000           5300 J         3300000         1300000           2900 J         1400000         600000	02/28/02         02/28/02         02/28/02         02/28/02         02/28/02           13.5-15         4-6         8-10         10-11.5           3300 J         2700000         1000000         150000 J           1900 J         140000 J         72000 J         48000 J           270 U         160000 J         130000 J         62000 J           1400 J         270000 J         190000 J         89000 J           660 J         390000 J         170000 J         87000 J           390 U         250000 J         130000 J         67000 J           940 U         130000 J         53000 J         29000 J           420 U         180000 J         88000 J         34000 J           960 U         180000 J         80000 J         42000 J           830 J         570000         240000         130000 J           440 U         25000 U         12000 U         9000 U           2100 J         640000         270000         160000 J           440 U         12000 U         270000         160000 J           440 U         12000 U         330000         540000           5300 J         3300000         1300000         540000	02/28/02         02/28/02         02/28/02         02/28/02         02/28/02         02/28/02           13.5-15         4-6         8-10         10-11.5         13-14           3300 J         2700000         1000000         150000 J         1700 J           1900 J         140000 J         72000 J         48000 J         3400 J           270 U         160000 J         130000 J         62000 J         290 U           1400 J         270000 J         190000 J         89000 J         480 J           660 J         390000 J         170000 J         87000 J         480 J           390 U         250000 J         130000 J         67000 J         420 U           940 U         130000 J         53000 J         29000 J         1000 U           420 U         180000 J         88000 J         34000 J         450 U           960 U         180000 J         80000 J         42000 J         1000 U           830 J         570000         240000         130000 J         640 J           440 U         25000 U         12000 U         9000 U         480 U           2100 J         640000         270000         160000 J         480 U           12000	02/28/02         02/28/02         02/28/02         02/28/02         02/28/02         02/28/02         02/28/02           13.5-15         4-6         8-10         10-11.5         13-14         4-6           3300 J         2700000         1000000         150000 J         1700 J         2400000           1900 J         140000 J         72000 J         48000 J         3400 J         230000 J           270 U         160000 J         130000 J         62000 J         290 U         340000 J           1400 J         270000 J         190000 J         89000 J         480 J         560000 J           660 J         390000 J         170000 J         87000 J         480 J         650000 J           390 U         250000 J         130000 J         67000 J         420 U         540000 J           940 U         130000 J         53000 J         29000 J         1000 U         270000 J           420 U         180000 J         88000 J         34000 J         450 U         380000 J           960 U         180000 J         80000 J         42000 J         1000 U         330000 J           830 J         570000         240000 J         130000 J         640 J         850000 J <tr< th=""><th>02/28/02         02/28/02         02/28/02         02/28/02         02/28/02         02/28/02         03/08/02           13.5-15         4-6         8-10         10-11.5         13-14         4-6         10.5-11.5           3300 J         2700000         1000000         150000 J         1700 J         2400000         120000 J           1900 J         140000 J         72000 J         48000 J         3400 J         230000 J         150000 J           270 U         160000 J         130000 J         62000 J         290 U         340000 J         210000           1400 J         270000 J         190000 J         89000 J         480 J         560000 J         300000           660 J         390000 J         170000 J         87000 J         480 J         650000 J         290000           390 U         250000 J         130000 J         67000 J         420 U         540000 J         190000           940 U         130000 J         53000 J         29000 J         1000 U         270000 J         77000 J           420 U         180000 J         88000 J         34000 J         450 U         380000 J         110000 J           960 U         180000 J         80000 J         42000 J</th></tr<>	02/28/02         02/28/02         02/28/02         02/28/02         02/28/02         02/28/02         03/08/02           13.5-15         4-6         8-10         10-11.5         13-14         4-6         10.5-11.5           3300 J         2700000         1000000         150000 J         1700 J         2400000         120000 J           1900 J         140000 J         72000 J         48000 J         3400 J         230000 J         150000 J           270 U         160000 J         130000 J         62000 J         290 U         340000 J         210000           1400 J         270000 J         190000 J         89000 J         480 J         560000 J         300000           660 J         390000 J         170000 J         87000 J         480 J         650000 J         290000           390 U         250000 J         130000 J         67000 J         420 U         540000 J         190000           940 U         130000 J         53000 J         29000 J         1000 U         270000 J         77000 J           420 U         180000 J         88000 J         34000 J         450 U         380000 J         110000 J           960 U         180000 J         80000 J         42000 J

g/kg - Micrograms per kilogram

bls - Feet below land surface

<sup>-</sup> Estimated value

I - Analyte not detected

AH - Polycyclic Aromatic Hydrocarbons

Pata highlighted in Bold represent total PAH concentrations that exceed the Site criteria of 1,000,000 µg/kg

Table 1. Summary of Polycyclic Aromatic Hydrocarbons Detected in Fill Material, Former 2nd Avenue Manufactured Gas Plant, Brooklyn, New York.

	Sample Designation:	AN-7N	AN-7N	AN-8N	AN-8N	AN-9	AN-9	AN-9	AN-9N
Parameter	Sample Date:	03/08/02	03/08/02	03/12/02	03/12/02	03/13/02	03/13/02	03/13/02	03/13/02
(Concentrations in µg/kg)	Sample Depth (ft bls):	7-8	8-10	6-8	8-10	14-15	6-8	8-10	10-12
			· .			•			
-Methylnaphthalene		420000	520000	660000	260000 J	660 U	1900 U	700 U	660 U
cenaphthene		110000 J	150000 J	110000 J	130000 Ј	350 U	44000	380 U	350 U
cenaphthylene		180000	290000	110000 J	170000 J	260 U	26000	280 U	260 U
inthracene		250000	390000	230000 J	310000 J	280 U	58000	300 U	280 U
ienzo[a]anthracene		240000	350000	230000 Ј	240000 J	350 U	54000	390 J	350 U
lenzo[a]pyrene		160000 J	220000	170000 J	210000 J	370 U	29000	400 U	380 U
lenzo[b]fluoranthene		81000 J	100000 J	76000 J	84000 J	890 U	25000	950 U	900 U
lenzo[g,h,i]perylene		100000 J	150000 J	100000 J	110000 Ј	400 U	43000	430 U	400 U
lenzo[k]fluoranthene		90000 J	120000 J	110000 J	110000 J	910 U	31000	980 U	920 U
hrysene		250000	390000	330000	350000 J	400 U	49000	430 U	400 U
Pibenzo[a,h]anthracene		38000 J	62000 J	14000 U	27000 U	420 U	7300 J	450 U	420 U
luoranthene		300000	410000	300000	320000 J	520 U	70000	680 J	520 U
luorene		330000	520000	380000	420000 J	470 U	36000	530 J	470 U
ideno[1,2,3-cd]pyrene		79000 J	110000 J	76000 J	67000 J	420 U	27000	450 U	420 U
Iaphthalene		860000	1400000	1100000	1000000	750 U	2200 U	800 U	750 U
henanthrene		870000	1400000	1600000	1700000	560 U	75000	600 U	570 U
yrene		770000	820000	800000	860000	450 U	130000	720 J	450 U
							The state of		
	Total PAH Concentrations:	5128000	7402000	6382000	6341000	0	704300	2320	0
	Total PAH Concentrations:	5128000	7402000	6382000	6341000	0	704300	2320	0

g/kg - Micrograms per kilogram

bls - Feet below land surface

<sup>-</sup> Estimated value

<sup>&</sup>lt;sup>[-</sup> Analyte not detected

AH - Polycyclic Aromatic Hydrocarbons

ata highlighted in Bold represent total PAH concentrations that

exceed the Site criteria of 1,000,000 µg/kg

Table 1. Summary of Polycyclic Aromatic Hydrocarbons Detected in Fill Material, Former 2nd Avenue Manufactured Gas Plant, Brooklyn, New York.

			the state of the s						
	Sample Designation:	AN-9N	AN-9N	CN-10N	CN-10N	CN-10S	CN-10S	CN-10S	CN-11
Parameter	Sample Date:	03/13/02	03/13/02	02/28/02	02/28/02	02/28/02	02/28/02	02/28/02	03/01/02
(Concentrations in µg/kg)	Sample Depth (ft bls):	12-14	5.5-7.5	4-6	8-10	10-11.5	13-15	6-8	14-16
							;		
-Methylnaphthalene		660 U	670 U	880 U	850 U	750 J	1800000	24000	710 U
cenaphthene		350 U	4400 J	1600 J	460 U	620 J	380000 J	8400 Ј	380 U
cenaphthylene		260 U	1300 J	350 U	330 U	530 J	100000 J	1100 J	280 U
nthracene		280 U	6900 J	. 2500 J	840 J	910 J	450000 J	3700 J	520 J
enzo[a]anthracene		350 U	4900 J	4400 J	5900 J	1500 J	220000 J	2300 J	1400 J
enzo[a]pyrene		380 U	2400 Ј	4500 J	5200 J	1200 Ј	180000 J	2100 Ј	1200 J
enzo[b]fluoranthene		900 U	2200 J	2900 J	4000 J	990 J	120000 U	1400 U	1100 J
enzo[g,h,i]perylene		400 U	2100 J	2800 J	2500 J	840 J	54000 U	640 U	570 J
enzo[k]fluoranthene		920 U	2200 J	3700 J	4600 J	1100 Ј	130000 J	1600 J	1200 J
hrysene		400 U	5200 J	4600 J	6900 J	1700 J	230000 J	2700 J	1900 J
ibenzo[a,h]anthracene		420 U	430 U	570 U	550 U	440 U	57000 U	680 U	460 U
luoranthene		520 U	10000	11000	13000	2800 J	590000 J	5300 J	2600 J
luorene		470 U	5800 J	1300 J	610 U	860 J	390000 J	4900 J	510 U
ideno[1,2,3-cd]pyrene		420 U	1600 J	2100 Ј	2300 J	610 J	57000 U	680 U	460 U
aphthalene		750 U	770 U	1500 Ј	970 U	2200 J	€ 5100000	6800 Ј	820 J
henanthrene		570 U	5300 J	11000	2000 J	3500 J	1600000	12000 J	1600 J
yrene		450 U	16000	10000	11000	3600 J	620000 J	6600 J	2800 J
				en e					
	Total PAH Concentrations:	0	70300	63900	58240	23710	11790000	81500	15710
	·····								

<sup>3/</sup>kg - Micrograms per kilogram

bls - Feet below land surface

<sup>-</sup> Estimated value

<sup>-</sup> Analyte not detected

AH - Polycyclic Aromatic Hydrocarbons

ata highlighted in Bold represent total PAH concentrations that

exceed the Site criteria of 1,000,000 µg/kg

Table 1. Summary of Polycyclic Aromatic Hydrocarbons Detected in Fill Material, Former 2nd Avenue Manufactured Gas Plant, Brooklyn, New York.

	Sample Designation:	CN-11	CN-11	CN-12	CN-12	CN-12	CN-4	CN-4
Parameter	Sample Date:	03/01/02	03/01/02	03/01/02	03/01/02	03/01/02	02/07/02	02/07/02
(Concentrations in µg/kg)	Sample Depth (ft bls):	6-8	8-10.5	13-15	4-6	8-10	12-14	4-6
'-Methylnaphthalene		180000	1400 J	660 U	42000	830 U	240000	920000
Acenaphthene		120000	2200 J	350 U	18000 J	1300 J	150000 J	420000
\cenaphthylene		21000 J	760 J	260 U	10000 J	1200 J	37000 J	85000 J
Inthracene		69000 J	1900 J	280 U	11000 J	1800 J	260000	210000 J
Benzo[a]anthracene		40000 J	1700 J	350 U	21000	2600 J	250000	120000 J
Benzo[a]pyrene		35000 J	1400 Ј	370 U	13000 J	2000 J	200000 J	92000 J
lenzo[b]fluoranthene		17000 J	1100 U	890 U	10000 J	1400 J	180000 J	45000 J
Benzo[g,h,i]perylene		9600 J	550 J	400 U	13000 Ј	1000 Ј	130000 J	45000 J
lenzo[k]fluoranthene		25000 Ј	1200 J	910 U	14000 J	1800 J	200000 J	65000 J
lirysene		44000 J	1800 Ј	400 U	26000	3100 J	270000	110000 J
Dibenzo[a,h]anthracene		5100 U	510 U	420 U	4000 J	530 U	35000 J	19000 U
luoranthene		80000 J	3300 J	520 U	31000	4100 J	670000	260000 J
luorene		65000 Ј	1500 J	470 U	21000	880 J	160000 J	240000 J
ndeno[1,2,3-cd]pyrene		7800 J	510 U	420 U	10000 J	730 J	120000 J	42000 J
Iaphthalene		400000	4000 J	750 Ü	59000	1000 J	560000	1500000
henanthrene		230000	5600 J	570 J	81000	4200 J	980000	640000
yrene		120000	4000 J	580 J	71000	6600 J	600000	280000 J
		*						
	Total PAH Concentrations:	1463400	31310	1150	455000	33710	5042000	5074000

g/kg - Micrograms per kilogram

bls - Feet below land surface

<sup>-</sup> Estimated value

<sup>-</sup> Analyte not detected

AH - Polycyclic Aromatic Hydrocarbons

ata highlighted in Bold represent total PAH concentrations that

exceed the Site criteria of 1,000,000 µg/kg

Table 1. Summary of Polycyclic Aromatic Hydrocarbons Detected in Fill Material, Former 2nd Avenue Manufactured Gas Plant, Brooklyn, New York.

Sample Designation: CN-4 CN-5 CN-5 CN-5 CN-6 CN-6  Parameter Sample Date: 02/07/02 02/20/02 02/20/02 02/20/02 02/06/02 02/06/02	
Parameter Sample Date: 02/07/02 02/20/02 02/20/02 02/20/02 02/20/02 02/20/02	
Sample Date, 02/07/02 02/20/02 02/20/02 02/20/02 02/00/02	)2 02/06/02
(Concentrations in µg/kg) Sample Depth (ft bls): 8-10 10-12 14-15 6-3 10-12 14-1.	5 5-6
-Methylnaphthalene 18000 10000 2800 J 11000 860 U 960 J	910 U
cenaphthene 8900 J 7100 J 3000 J 7000 J 460 U 1500	J 500 J
cenaphthylene 1500 J 690 J 1100 J 340 U 1100	J 360 U
ınthracene 7600 J 2900 J 11000 J 4100 J 370 U 4200	J 950 J
ienzo[a]anthracene 8900 J 1800 J 16000 3300 J 510 J 8900	1700 J
lenzo[a]pyrene 7400 J 1600 J 12000 3000 J 490 U 5800	J 1400 J
enzo[b]fluoranthene 5000 J 980 J 10000 J 1800 J 1200 U 6400	J 1200 U
enzo[g,h,i]perylene 7100 J 670 J 11000 J 1400 J 520 U 4600	J 640 J
enzo[k]fluoranthene 6200 J 1300 J 13000 2600 J 1200 U 7300	J 1300 J
hrysene 8400 J 2100 J 18000 3800 J 520 U 8600	J 1600 J
Pibenzo[a,h]anthracene 2000 J 460 U 2900 J 500 U 550 U 1300	J 590 U
luoranthene 20000 4100 J 34000 6600 J 1200 J 16000	4400 J
luorene 6200 J 3100 J 5900 J 4100 J 610 U 1700	J 680 J
ideno[1,2,3-cd]pyrene 5900 J 500 J 9600 J 1100 J 550 U 4500	J 650 J
[aphthalene]         39000         10000         7700 J         12000         980 U         5000	J 1000 U
henanthrene 26000 11000 45000 15000 1100 J 13000	3600 J
yrene 18000 6300 J 46000 9800 920 J 14000	3100 J
Total PAH Concentrations: 196100 64140 249000 87600 3730 10486	0 20520

g/kg - Micrograms per kilogram

bls - Feet below land surface

exceed the Site criteria of 1,000,000 µg/kg

<sup>-</sup> Estimated value

<sup>-</sup> Analyte not detected

AH - Polycyclic Aromatic Hydrocarbons

ata highlighted in Bold represent total PAH concentrations that

Table 1. Summary of Polycyclic Aromatic Hydrocarbons Detected in Fill Material, Former 2nd Avenue Manufactured Gas Plant, Brooklyn, New York.

Sample Designation: CN-7   CN-7   CN-7   CN-8   CN-8   CN-8   CN-8   CN-9   CN-9	
(Concentrations in μg/kg)     Sample Depth (ft bls):     12-14     4-6     8-10     12-14     6-8     8-10     10-10-10-10-10-10-10-10-10-10-10-10-10-1	9
!-Methylnaphthalene       810 U       780 U       770 U       670 U       710 U       790 U       2600 U         \text{Acenaphthene}       430 U       420 U       410 U       360 U       380 U       420 U       1800 U         \text{Acenaphthylene}       320 U       300 U       300 U       260 U       280 U       310 U       5000 U         \text{Anthracene}       350 U       640 J       330 U       290 U       310 U       340 U       1300 U	/02
Acenaphthene       430 U       420 U       410 U       360 U       380 U       420 U       1800         Acenaphthylene       320 U       300 U       300 U       260 U       280 U       310 U       5000         Anthracene       350 U       640 J       330 U       290 U       310 U       340 U       1300	2
Acenaphthene       430 U       420 U       410 U       360 U       380 U       420 U       1800         Acenaphthylene       320 U       300 U       300 U       260 U       280 U       310 U       5000         Anthracene       350 U       640 J       330 U       290 U       310 U       340 U       1300	
\tenaphthylene         320 U         300 U         300 U         260 U         280 U         310 U         5000           \tenaphthylene         350 U         640 J         330 U         290 U         310 U         340 U         1300	0
Anthracene 350 U 640 J 330 U 290 U 310 U 340 U 1300	0 .
	J
2ango[a]enthrecene 420 II 1200 I 410 II 360 II 380 II 420 II 020	0
300 12003 410 300 300 420 320 320 420 300 300 420 420 300 420 420 420 420 420 420 420 420 420 4	) ,
3enzo[a]pyrene 460 U 1200 J 440 U 380 U 410 U 450 U 7000	J
3enzo[b]fluoranthene 1100 U 1100 U 910 U 970 U 1100 U 3200	J
3enzo[g,h,i]perylene 490 U 610 J 470 U 410 U 430 U 480 U 3600	J
3enzo[k]fluoranthene 1100 U 1300 J 1100 U 940 U 990 U 1100 U 5100	J
Chrysene 490 U 1500 J 470 U 410 U 430 U 480 U 840	) .
Dibenzo[a,h]anthracene         520 U         500 U         490 U         430 U         460 U         510 U         1100	) J
'luoranthene 630 U 2500 J 600 U 530 U 660 J 720 J 1500	0
Thuorene 580 U 550 U 550 U 550 U 510 U 560 U 1200	0
ndeno[1,2,3-cd]pyrene 520 U 500 U 490 U 430 U 460 U 510 U 3100	J
Japhthalene         920 U         890 U         880 U         770 U         820 U         900 U         3100	0
'henanthrene 690 U 2700 J 660 U 580 U 810 J 1400 J 3300	0
'yrene 550 U 2600 J 520 U 460 U 660 J 730 J 1800	0
Total PAH Concentrations: 0 14250 0 0 2130 2850 2117	

g/kg - Micrograms per kilogram

t bls - Feet below land surface

<sup>-</sup> Estimated value

J - Analyte not detected

<sup>&#</sup>x27;AH - Polycyclic Aromatic Hydrocarbons

Data highlighted in Bold represent total PAH concentrations that

exceed the Site criteria of 1,000,000 µg/kg

Table 1. Summary of Polycyclic Aromatic Hydrocarbons Detected in Fill Material, Former 2nd Avenue Manufactured Gas Plant, Brooklyn, New York.

			100			
	Sample Designation:	CN-9	CN-9	CN-10	CN-10	CN-10
Parameter	Sample Date:	02/06/02	02/06/02	02/19/02	02/19/02	02/19/02
(Concentrations in µg/kg)	Sample Depth (ft bls):	12-14	5-6	4-6	8-10	12-14
-Methylnaphthalene		340000	250000	290000	4200 J	4200 J
cenaphthene		130000	120000	180000	9000	6200 J
cenaphthylene		27000 J	35000 J	13000 J	3300 Ј	870 J
nthracene		84000	80000	81000 J	8400 J	8400 J
enzo[a]anthracene	36、一位治疗生产,多生的	51000 J	60000 J	57000 J	8500 J	8700 J
lenzo[a]pyrene		35000 J	46000 J	51000 J	8000 J	7000 J
enzo[b]fluoranthene		19000 J	26000 J	23000 J	4800 J	4600 J
enzo[g,h,i]perylene		18000 J	23000 J	28000 J	6600 J	6200 J
enzo[k]fluoranthene		32000 J	36000 J	36000 J	6800 J	5500 J
hrysene		44000 J	53000 J	55000 J	10000	8900
)ibenzo[a,h]anthracene		6000 J	7300 J	U	1700 J	U
luoranthene		98000	120000	120000 J	17000	19000
luorene		90000	97000	76000 J	7500 J	5900 J
ıdeno[1,2,3-cd]pyrene		17000 J	20000 J	22000 J	5400 J	4700 J
laphthalene		490000	310000	760000	14000	16000
henanthrene		240000	240000	330000	28000	35000
yrene		98000	120000	120000 J	29000	22000
	Total PAH Concentrations:	1819000	1643300	2242000	172200	163170

g/kg - Micrograms per kilogram

bls - Feet below land surface

<sup>-</sup> Estimated value

<sup>-</sup> Analyte not detected

AH - Polycyclic Aromatic Hydrocarbons

vata highlighted in Bold represent total PAH concentrations that exceed the Site criteria of 1,000,000 µg/kg

Table 2. Summary of Volatile Organic Compounds Detected in Fill Material from Gasholder #1, Former 2nd Avenue Manufactured Gas Plant, Brooklyn, New York.

	Sample Designation:	GH1-A	GH-1A	GH-1A	GH-1B	GH-1C
Parameter	Sample Date:	03/15/02	03/19/02	03/20/02	03/18/02	03/18/02
(Concentrations in µg/kg)	Sample Depth (ft bls):	13-17	18-20	22-24	12-16	16-l7.5
1,1,1-Trichloroethane		0.6 U	1900 ປ	7400 U	3 U	74 U
1,1,2,2-Tetrachloroethane		1 U	2600 U	10000 U	5 U	200 J
1,1,2-Trichloroethane		0.6 U	1200 U	5000 U	3 U	49 U
1,1-Dichloroethane		0.6 U	1800 U	7200 U	3 U	71 U
1,1-Dichloroethene		0.6 U	1000 U	4000 U	3 U	40 U
1,2-Dichloroethane		0.5 U	4000 U	16000 U	2 U	160 U
1,2-Dichloroethene (total)		0.6 U	2200 U	8600 U	3 U	86 U
1,2-Dichloropropane		0.5 U	900 U	3600 U	2 U	36 U
1,3-Dichloropropene, cis-		0.5 U	1200 U	4900 U	2 U	49 U
1,3-Dichloropropene, trans-		0.5 U	1200 U	4700 U	2 U	47 U
2-Butanone		. 3 U	11000 J	30000 J	16 U	230 U
2-Hexanone		4 U	5400 U	21000 U	20 UB	210 U
4-Methyl-2-pentanone		. 3 U	6400 U	26000 U	16 U	250 U
Acetone		48 B	37000 U	150000 ປັ	94 B	1500 U
Benzene		0.6 U	57000	380000	3 U	6000 .
Bromodichloromethane		0.6 U	1300 U	5300 U	3 U	53 U
Bromoform		0.7 U	1400 U	5700 U	3 U	57 U
Bromomethane		3 U -	3200 U	13000 U	14 U	130 U
Carbon disulfide		1 J	120 U	470 U	1 <b>U</b>	5 U
Carbon tetrachloride		0.5 U	1900 U	7400 U	2 U	74 U
Chlorobenzene		0.6 U	2400 U	9600 U	3 U	95 U
Chloroethane		0.8 U	2200 U	8600 U	4 U	86 U
Chloroform		ั0.7 ป	4400 U	18000 U	3 U	170 U
Chloromethane		0.9 U	2000 U	8200 U	5 U	81 U
Dibromochloromethane	er en	0.5 U	1300 U	5300 U	2 U	53 U
Ethylbenzene		1 J	63000	440000	19 J	11000
Methylene chloride		1 ЛВ	3800 U	15000 U	7 UB	150 U
Styrene		0.6 U	2300 U	91000	3 U	92 U
Tetrachloroethene		0.5 U	3000 U	12000 U	2 U	120 U
Toluene		1 J	9000 J	310000	12 JB	440 J
Trichloroethene		0.6 U	950 U	3800 U	3 U	. 38 U
Vinyl acetate		3 U	5900 U	23000 U	17 U	230 U
Vinyl chloride		0.5 U	3200 U	13000 U	2 U	130 U
Xylenes (total)		7	67000	620000	89	8700
	Total VOCs:	59	207000	1871000	214	26340

ug/kg - Micrograms per kilogram

ft bis - Feet below land surface

J - Estimated value

J - Analyte not detected

8 - Compound detected in blank sample

Table 3. Summary of Semivolatile Organic Compounds Detected in Fill Material from Gasholder #1, Former 2nd Avenue Manufactured Gas Plant, Brooklyn, New York.

	Sample Designation:	GH-1A	GH-1A	GH-1B	GH-1C	GH1-A
Parameter	Sample Date:	03/19/02	03/20/02	03/18/02	03/18/02	03/15/02
(Concentrations in µg/kg)	Sample Depth (ft bls):	18-20	22-24	12-16	16-17.5	13-17_
2-Methylnaphthalene		520000	4700000	2700 J	18000	620 U
Acenaphthene		250000J	560000 J	2500 J	11000	460 J
Acenaphthylene		29000J	1000000 մ	910 J	4600 J	240 U
Anthracene		150000J	600000 J	4800 J	9200	1000 J
Benzo[a]anthracene		180000J	450000 մ	5300 J	5400 J	1400 Մ
Benzo[a]pyrene		150000J	370000 J	5000 J	4400 J	1300 J
Benzo[b]fluoranthene		68000J	160000 U	3900 J	2000 J	1200 Ј
Benzo[g,h,i]perylene		43000J	99000 J	2200 J	1600 J	540 J
Benzo[k]fluoranthene		100000J	300000 J	4900 J	3600 J	1300 J
Chrysene		2000001	480000 J	5800 J	6300 J	1500 J
Dibenzo[a,h]anthracene		14000U	77000 U	960 J	610 J	400 U
Fluoranthene		330000	860000 J	13000	13000	3700 J
Fluorene		2300001	1100000 J	3400 J	8500	540 J
Indeno[1,2,3-cd]pyrene		36000J	79000 J	2400 J	1500 J	550 J
Naphthalene		930000	9200000	4500 J	26000	710 U
Phenanthrene		1100000	3300000	16000	31000	3600 J
Pyrene		630000	1700000	10000	12000	2600 J
Dibenzofuran		21000J	130000J	2000J	1200J	330U
Carbazole		17000U	940001	2000៛	530U	490U
				1	•	
	Total SVOC Concentrations:	4967000	24928000	92270	159910	19690

μg/kg - Micrograms per kilogram

ft bls - Feet below land surface

J - Estimated value

U - Analyte not detected

SVOC - Semivolatile Organic Compounds

# ATTACHMENT 1

Geologic Logs



ROUX ASSOCIATES, INC.

1377 Motor Parkway Islandia, NY Telephone: 631 -232-2600 Fax: 631-232-9898

Environmental Consulting & Management SOIL BORING LOG of 1 Page 1 EASTING WELL NO. NORTHING AN-3 LOCATION PROJECT NO./NAME 124-136 2nd Avenue 92401Y02 / FCRC 2nd Avenue MGP Site APPROVED BY LOGGED BY S. Glash T. Mills Brooklyn, New York DRILLING CONTRACTOR/DRILLER GEOGRAPHIC AREA Area A Aquifer Drilling & Testing, Inc. / BOREHOLE DIAMETER DRILLING EQUIPMENT/METHOD SAMPLING METHOD START-FINISH DATE DRILL BIT DIAMETER/TYPE 4.25-in, / Auger 6-inches 1/21/02-1/21/02 /HSA 2" Split Spoon DEPTH TO WATER LAND SURFACE ELEVATION **BACKFILL** (FT.) (Feet BLS) **Cuttings/Bentonite Pellets** PID Blow Depth, Graphic Values REMARKS Visual Description Counts leet Log per 6" (ppm) Brown fine to medium SAND, trace Gravel, trace Wood, trace Brick; dry (fill) 23 36 30 28 Brown to gray fine to medium Sand and Gravel, trace Brick, trace Concrete; 16 19.8 dry (fill) 17 21 13 Brown to black stained fine to medium SAND, trace Silt; dry (fill) 10 15 67.1 Slight odor. 10 9 101 Brown to black stained fine to medium SAND, trace Silt, trace Gravel; dry 58.2 я 5 Brown to reddish brown Silt and fine Sand; (fill) 40.2 12 Black stained fine to medium Sand and Silt; (fill) 5 6 30.1 Free product. 5 9 60.2 10 10 Dark brown to reddish brown fine to medium Sand and Silt, trace Clay, (fill) 2 2 59.1 Sheen. 2 2 24.9 Dark brown to black stained fine to medium Sand and Silt; (fill) 58.5 Sheen. 55,9 ROUXGDT Dark gray to black stained fine to medium Sand and Gravel; (fill) 2 Free product/ 55.9 15 15 5 PEAT 3 ENDPOI-1 11/

Bottom of boring 16 feet below land surface.



Environmental Consulting & Management

1377 Motor Parkway Islandia, NY Telephone: 631 -232-2600 Fax: 631-232-9898

# SOIL BORING LOG

WELL NO.	NORTHING	EASTING		
AN-4			·	
PROJECT NO./NAME		LOCATION		
92401Y02 / FCRC 2nd A	venue MGP Site	124-136 2nd Avenue		
APPROVED BY	LOGGED 8Y			
S. Glash	D.Moss	Brooklyn, New York		
DRILLING CONTRACTOR/DRIL	LER	GEOGRAPHIC AREA		
Aquifer Drilling & Testir	ng, Inc. / J. Philbin	Area A		* *
DRILL BIT DIAMETER/TYPE	SOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
3 7/8 inch / Tri-Cone	4-inches	CME-45 / Drive and Wash	2" Split Spoon	2/7/02-2/7/02
LAND SURFACE ELEVATION	DEPTH TO WATER	BACKFILL		
(FT.)	(Feet BLS)	Grout	-	

epin. eet		Graphic Log	Visual Description	Blow Counts per 6*	PID Values (ppm)	REMARKS
		田田	Oark brown to tan medium to coarse SAND, trace Gravel, trace Brick, trace Concrete; moist (fill)	15		
		HHH		19	T I	
•		pp		18		
		1444				•
-		1222	O I have a later a section of the control of the co	31		
		pp	Dark brown to tan medium to coarse SAND, trace Gravel, trace Brick, trace Concrete; moist (fill)	15	7.9	
		HHH		15	<b>Y</b>	
•		m		30.	<b>i</b> l	
	,	HHH		Į		
-		HHH	Clark stained for CANIO lithin Silk trace Court tongs Coal Francisco	. 27		
		mm	Black stained fine SAND, little Silt, trace Gravel, trace Coal Fragments; moist (fill)	6		e e e e e e e e e e e e e e e e e e e
		HHHH		7	<b>T</b> i	
_		四四		6	55.2	
		HAH		10		
-		MA	Black stained fine SAND, some Coal Fragments, little Gravel, trace Silt; wet	. )		
		mm	(fill)	12		
		1		10	<b>T</b>	
		mm		2	52.3	Trace free product.
		1444		2		
-	•		Gray fine SAND, little Coal Fragments, little Silt, trace Gravel; wet (fill)	. ' ]		
		mm	Gray line SAND, little Coal Fragments, little Sill, trace Gravel, wet (Illi)			
•		1444				
-		mm			12.8	Trace free product.
		HHHH				
_			Dayly assembly believed fine to process CAMD, grants Comment Bible City	· )	4	
		mm	Dark gray to black stained fine to coarse SAND, some Gravel, little Silt, trace Glass; wet (fill)			
		1		1.	<b>T</b>	
•		m			3.1	Odor.
		HHH				
-		1-1-1-1-1	No recovery	,		
		m	Notecovery		7	
	•	HHH			Y	
		HHH			<b>I</b> I	
		444				and the state of the state of
		1777	Black stained medium to coarse SAND, little Silt, little Gravel; wet (fill)			Slight odor.
		mm	BIGG STOREGUE THEOLOGY TO COMISE SATED, HILLE SHIL, HILLE SHAVEL, WELL (TIII)	. 54		ongrat odor.
,		HHH			<b>▼</b>   '	
_		京京五	PEAT	1	6.9	
		P 77 77				
-		لسسا		- 1 - 12 J		Battom of boring 16 feet
				an in		below land surface



1377 Motor Parkway Islandia, NY Telephone: 631 -232-2600 Fax: 631-232-9898

SOIL BORING LOG Page of 1

•	1 of	_1	<u> 501L</u>	BORING LOG			
WELL NO	AN-6		NORTHING	EASTING			
	NO./NAN			LOCATION 124-136 2nd Avenue			
92401Y02 / FCRC 2nd Avenue MGP Site APPROVED BY LOGGED BY				124-136 2nd Avenue	•		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
S. Glas		1	D.Moss	Brooklyn, New York			
DRILLING	CONTRA	CTOR/DRIL	LER .	GEOGRAPHIC AREA		:	
Aquifer	Drilling	& Testin	g, Inc. / J. Philbin BOREHOLE DIAMETER	Area A  DRILLING EQUIPMENT/METHOD	<del>Tarratua</del>		LOTTOT CHICAL BARA
	ch / Tri-		4-inches	CME-45 / Drive and Wash	SAMPLING M 2" Split Sp		START-FINISH DATE 2/19/02-2/19/02
LAND SU	RFACE E	EVATION	DEPTH TO WATER	BACKFILL	12 Opint of	20011	21 13102-21 13102
(FT.)			(Feet BLS)	Cuttings/Bentonite Pellets			
eplh,		Graphic	Visual	Description	Blow Counts	PID Valuas	REMARKS
feet	<del></del>	Log		), trace Silt, trace Brick, trace Concrete;	per 6"	(mqq)	
	2.4	m	dry (fill)	, trace out, trace brick, trace concrete,	9		
		FFFF			17		
		AH			14		
		世世	1		21		
		HH			7	4.1	
• -		四世	1	•	14		
		HH	1		21	'	
		HH	1	0% to a 0 or 1 or 1 or 1 or 1 or 1	27	N	
		FFF	Brown tine to coarse SAND, little	Silt, trace Gravel; moist to wet (fill)	9 (		
5		M	1	•	9	'	
	•	DTT	1		10	4.3	
		MM	1		6 - 1.	V	
•		HH		dium SAND, little Silt, trace Gravel, trace	6		
		世廿	coarse Sand; wet (fill)		5		
		HH	1		10	18.1	Odor and trace free product
		四位	1		10	- ·	
	•	HIII		e Silt, trace Gravel trace, Ashalt-like	9		
		FFFF	material; wet (fill)		9		
• •		M		$\label{eq:continuous} \mathcal{A}_{i} = \{ \mathbf{x}_{i}, \dots, \mathbf{x}_{i} \}  \text{if } i \in \mathbb{N} $	16	89.1	Odor and trace free product
10	•	FFF			17		
10		m	Black stained medium to coarse	SAND, some Gravel, trace Silt, trace	17	h'.	
	-	HH	Ashalt-like material; wet (fill)		22	<b>/</b> {	
		mm	1		25	57.2	Odor and free product.
		17777	CONCRETE	<del></del>	50/1	3, 2	
		0.0.0.0	23,13,12,2	No transition of the contract of	307		
		0000					
		10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	d.,	ND, little Silt, trace Gravel; wet (fill)	—  <u> </u>		
٠,		m	DIGOV STRING IN ILL O MEDICAL SWI	15, and one nace oraver, wer (IIII)			
		HH	1				
		m				78.7	
15_		Hill				Y	
		pp	No recovery		N.		
-		HH					
		世世			. J		
		PH			4	V .	2
		15 12 7	Peat and Clay; wet		l A		
		1 50 50				-	
•		24 44 3				1	
		10 34 34				1	
		24 24 3	The second secon			<b>∏</b>	
20		<u> </u>				V	
<del></del>		خدما بدياله	<del></del>				Bottom of boring 20 feet
		en e					below land surface.
3							



ROUX ASSOCIATES, INC. Environmental Consulting

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& Management SOIL BORING LOG Page 1 of 1 WELL NO. NORTHING PROJECT NO./NAME LOCATION 124-136 2nd Avenue 92401Y02 / FCRC 2nd Avenue MGP Site APPROVED BY LOGGED BY Brooklyn, New York GEOGRAPHIC AREA S. Glash D.Moss DRILLING CONTRACTOR/DRILLER Aquifer Drilling & Testing, Inc. / D. Pepe Area A DRILL BIT DIAMETER/TYPE BOREHOLE DIAMETER DRILLING EQUIPMENT/METHOD START-FINISH DATE SAMPLING METHOD 3 7/8 inch / Tri-Cone 4-inches CME-75 / Drive and Wash 2" Split Spoon 3/12/02-3/13/02 LAND SURFACE ELEVATION DEPTH TO WATER BACKFILL (Feet BLS) (FT.) Grout Blow Depth, Graphic Log Visual Description Counts Values REMARKS feel per 6" (ppm) Tan to brown fine to coarse SAND, trace Gravel, trace Brick, trace 18 Concrete, trace Wood; dry (fill) 20 23 20 Tan to brown fine to coarse SAND, trace Gravel, trace Brick, trace Concrete, trace Wood; wet at 4 ft. (fill) 23 18 30 46 Brown to red Sand and Gravel, little Concrete, trace Silt; wet (fill) 10 50/5 CONCRETE *0* 0 0000 Black filne SAND, some Silt, trace coarse Sand, trace Gravel; wet (fill) Odor and Free product. Brown to black stained fine SAND, some Silt; wet (fill) Slight odor. 10 10 Brown to green fine Sand and Silt; wet (fill) Light brown fine SAND, some Silt, trace Gravel; wet (fill) 4/17/02 ROUXGDT Light brown fine SAND and Silt, trace Clay, trace Gravel; wet (fill) 15 15 G<sub>0</sub> Brown PEAT, and green to grey Clay ENDPO4-1 Bottom of boring 16 feet

below land surface.



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Page	1	of	1	SOIL	BORING LOG			· · · · · · · · · · · · · · · · · · ·	
WELL				NORTHING	EASTING				-
980 I	AN- ECT NO.		=		LOCATION			<del> </del>	
				venue MGP Site	124-136 2nd Avenue				
APPR	OVED B	Ÿ		LOGGED BY				•	
S. GI	lash			D.Moss	Brooklyn, New York				
			TORIDRIL		GEOGRAPHIC AREA				
DRILL	BIT DIA	III(I)(I) METE	& restir	ng, Inc. /   BOREHOLE DIAMETER	Area A  DRILLING EQUIPMENT/METHOD	SAMPLING	METHOD	START-FINISH DATE	
3 7/8	inch /	Tri-0	Cone	4-inches		2" Split S		3/13/02-3/13/02	
LAND	SURFAC	CE EL	VATION	DEPTH TO WATER	BACKFILL		J		
(FT.	)			(Feet BLS)	Grout		·		
1			1						
								<del></del>	
Depth.			Graphic	. Visua	l Description	Blow Counts	PID Values	REMARKS	
feet			Log	<u> </u>		per 6"	(ppm)		
			HH	Dark brown medium to coarse S	SAND, trace Gravel, trace brick, trace	11			-
			田口	Concrete; moist (fill)		14	<b>y</b>		
٠ -			k+++	1		1. 1			•
			田田			. 19	<b>A</b>		
				1		17			
			444	Oark brown medium to coarse S Concrete; wet at 4 (fill)	SAND, trace Gravel, trace brick, trace	14	8.9		
			口口	Concrete, wet at 4 (nn)		12	<b>T</b>   ""		
· -			1444	4		1 1		•	
			DD DD			12			
l .			HH	1		8			
			1444	Green to brown fine SAND, son	ne Silt, trace Gravel; wet (fill)	6	V I		
			pp			50/3	7.9		
5			(1) (1) (1)	CONCRETE	· · · · · · · · · · · · · · · · · · ·	30/3	7.5		5
			000	·		_[			
			H+H	Black stained fine SAND, some	Silt, trace Gravel; wet (fill)	6			•
	•		HH	$\overline{A}$		6	•		
						3	[ ]		
			PPP					Strang adas	-
•			<b>位位</b>			7/12	160	Strong odor.	
			1444	1					
			HH	Red to brown fine SAND, little S	filt, trace coarse Sand; wet (fill)	8			
						,	Y		
}			HH	1		1 7	]]		
			四口			. 6	4.9		
10			1+++	<b>-</b>		3			
			FFFF	Red to black stained SILT, some	e fine to medium Sand; wet (filt)	1			. <del>-</del>
			四四	]		1 1	<b>y</b>		
		•	1444	-					<b>.</b>
			口口	]		1	5.2		
			FFFF			1 1			1
			1111	Red to brown medium SAND, se	ome Silt, trace Gravel; wet (fill)	1 31 1			·
			四日	1			<b>v</b>		
			1777	1			_		
			四口			1 1	4.7	and the second second	
			H+H	· · · · · · · · · · · · · · · · · · ·		] t			
[			15 52	PEAT; wet		1 1			
			1 27 21			[ [	<b>T</b>	$(-\infty, -1) = (-\infty, -1)$	
15			22 22	4				$(x_1, x_2, \dots, x_n) \in \mathbb{R}^n$	_15
		•	F 77 71	7		1/12	<b>A</b> }		* .
ľ			34.34						
						_		Bottom of boring 16 feet	
			14.44.					Bottom of boring 16 fe pelow land surface.	et



of 1

Environmental Consulting
& Management

ANE-1

Page 1 WELL NO. 1377 Motor Parkway Islandia, NY Telephone: 631 -232-2600 Fax: 631-232-9898

NORTHING

SOIL BORING LOG

PROJECT NO /NAM 12401Y02 / FCF		venue MGP Site	LOCATION 124-136 2nd Avenue			er i	
APPROVED BY	10 50,571	LOGGED BY				•	
S. Glash		D.Moss	Brooklyn, New York				
DRILLING CONTRA	CTOR/DRILI	LER	GEOGRAPHIC AREA				
Aquifer Drilling	& Testin	g, Inc. / J. Philbin BOREHOLE DIAMETER		·			
			DRILLING EQUIPMENT/METHOD	SAMPLING M		START-FINISH OAT	
<u> 3 7/8 inch / Tri-</u>	Cone	4-inches	CME-45 / Drive and Wash	2" Split Sp	oon	1/21/02-1/21/02	
AND SURFACE EL	EVATION	DEPTH TO WATER	BACKFILL				
(FT.)		(Feet BLS)	Grout	·			
	······································			Blow	PID		
epih, feet	Graohic Log	Vist	ual Description	Counts per 6"	Values (ppm)	REMARKS	
	HH	Brown fine to coarse SAND,	trace Gravel, trace Brick; dry (fill)	11			
	HH	1		1			
	m			9			
-	1777				6.3		
	444	1		18	0.3		٠
•	m			18			
-	<b>₽. }. }. }. }.</b> }.	Grow fine to madium CANID	trace Gravel, trace Ash; moist (fill)	'#			
	TITT	July inte to medium SAND,	uade Graver, sade Asii, moist (IIII)	4		•	
	MM				<b>i</b>		
	1444		the second second	5			1
•	4444	Black stained fine SAND, tra	ace Gravel, trace Roots; moist (fill)	8 1	1735	Strong odor.	
	HH						
•	mm	. ·		20	Ŭ.		
	0.0.0	CONCRETE		<b>─</b> │ <b>『</b>	1		
	0.000				s	Slight odor.	_
·	0000			-   -		-	
	0000	·	CAND WILL ON A	· L	<u>.</u>		
	1444	Hack stained fine to coarse	SAND, little Silt, trace Gravel; wet (fill)	2			
•	port						
	mm	1		1			
	1444	1		2	81.3	Slight odor.	
•	HHH	1		<u> </u>	61.3		
	m			1 1		The state of the s	
	1. 1. 1. 1. 1. 1.	No regarrent					
	TH	No recovery					•
7.	m			- }			-
	HHH	1		4	N .		
	HHH	Black stained fine to coarse	SAND, some Gravel, trace Silt, trace Shells,	1 1			•
	4444	trace, Glass; wet (fill)					
	THE			1   <b>   </b>	$\Pi = -1$		
	m	]		- {	le le	Slight odor.	
	HHH		<del>-</del>	1 1	21.8		
	FFT			1 1			
	un	1					
	1444	Black Coal Fragments, trace	Silt; wet (fill)	2			
	TITT	1			 		
	m	]		2			
	1444				7.8 S	light ador.	
	4444	1					
-	m	1		1 1			
	HH	4					
	f4444	1		1 1		egal (1966)	
	7777	PEAT		<u> </u>	,,,		
	1, 31, 31,			`  '  <b> </b>	14.4		
		1		2			
	40 40 4				1		
	11. 34. 34			3			
		<del></del>		🏣	■ I	lottom of boring 14 feet	
		成员海索 (4) 选择 4			b	elow land surface.	•
					100	and the second second	
	· · · · · · · ·						



WELL N	-		NORTHING	EASTING	· · · · · · · · · · · · · · · · · · ·			
AN	W-1 (SB-	3)		LOCATION			<del></del>	
	T NO./NAME		Jonus MGP Sito	LOCATION 124-136 2nd Avenue				
APPROV	/ED 8Y	C ZIIG A	venue MGP Site LOGGED BY		,			
S. Glas	sh		D.Moss	Brooklyn, New York				_
DRILLIN	G CONTRAC	TOR/DRIL	LER	GEOGRAPHIC AREA				
Roux /	Associate	s Inc / P	. Barczak BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING N	4ETUOD	START-FINISH DATE	
JRILL BI 2-in /	Drive San	nnler	2-inches	/ Geoprobe	2" Macro		1/2/02-1/2/02	
AND SI	Drive San	VATION	DEPTH TO WATER	BACKFILL	(Z Macro	0010	TILIOL TILIOL	
(FT.)			(Feet BLS)	Cuttings/Bentonite Pellets			· ·	
	<del></del>	·····						
eplh, feel		Graphic Log	Visu	al Description	Blow Counts	PID Values	REMARKS	
		- Log	<u> </u>		per 6"	(ppm)	····	
			Brick; dry (fill)	, trace Silt, trace Gravel, trace Coal, trace		0.0		
		1777	1					
			1					
	* .	HH						
. •			1					
		HH						
-		<b>F</b>	1			0.0		
		HH						
		1111	Light brown to black stained	fine to medium SAND, trace Silt, trace Gravel;		49.5	Slight odor.	
_		HH	dry (fill)					
<u> </u>		TTT	1			1		
		HH	1					
-		k4444	Disab stolered fire to see	CAND come Silt bear Count to Come		1.1.1	·	
		ppp	Black stained fine to coarse (	SAND, some Silt, trace Gravel, trace Coal; wet		91.5		
-		HH	\ ""					
		ppp	1					
		HH	1			iv.		
-		1444	Black stained fine to coarse \$	Sand and Silt, trace Gravel; wet (fill)		7.2	Slight odor and sheen on	
			1				water.	
-		HH						
		444			54			
0_		HH	1				and the second	
		++++	1					
-		M	1					
		$\mathbb{H}^{+++}$	1			:		
		UUU	01. 1. 1. 1. 1. 2. 7 799 2				On the second	
			Black stained SILT, little fine	to coarse Sand, trace Gravel; (fill)		35.2	Slight odor.	
		HH						
		FFFF						
		m	]					
•	-	k+++	4					٠
5		DDD						
_	•	++++	1			: .		
		DDD DDD	1					
•			8lack stained Silt and fine Sa	ind; wet		0.0		٠.
		HH	1			3,0		
-		评评	PEAT, little green to gray Silt	trace Sand: wet /fill)			Sheen on water.	
		i	EVI I IIII AI CEIL IO ALSA OIN	, trace come, wer (IIII)			CHOCK OIL WATER	
-		1 51 54						
		77 77 7	4				r e	
		12 24 24						
		34 34 X						
<u> </u>			1					
v								



1377 Motor Parkway Islandia, NY Telephone: 631 -232-2600 Fax: 631-232-9898

Page 1 of well NO.	<u> </u>		BORING LOG	·		
AS-2		NORTHING	EASTING			
PROJECT NO./NAME			LOCATION 124-136 2nd Avenue			
92401Y02 / FCRC	2nd Av	renue MGP Site	124-136 2nd Avenue			•
APPROVED BY		LOGGED BY	1	÷		
S. Glash		D.Moss	Brooklyn, New York GEOGRAPHIC AREA			
DRILLING CONTRACT			GEOGRAPHIC AREA			
Roux Associates DRILL BIT DIAMETER/	Inc / P.	Barczak BOREHOLE DIAMETER	Area A .  DRILLING EQUIPMENT/METHOD	Latinging	CTLIOO ::	DTAGT COUGLE OATE
JRILL BII DIAMETERA	ITPE		/ Geoprobe	SAMPLING M 2" Macro-		START-FINISH DATE . 1/8/02-1/8/02
2-in. / Drive Samp	ATION	2-inches DEPTH TO WATER	BACKFILL	Z   Wacro-	Core	110102-110102
(FT.)		(Feet BLS)	Cuttings/Bentonite Pellets			
	,L,	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,			
				Blow	PID	
Depih. feel	Graphic Log	Visual	Description	Counts	Values	REMARKS
	~~~~	l'a	CANO III. C. III.	per 6*	(opm)	
	בבבם	(fill)	rse SAND, trace Gravel, trace Brick; dry			·
F	H	\ <i>,</i>				
· ·	444					
<u> </u>	M					
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Į	111				î	,
. <u>.</u>	777					
Ĺ	M				0.0	•
l. l	444	{				
\$t	1111	Olask skips des se di C	ID trace Oraceli decta con stro	. [	A =	
·	777	Black stained fine to medium SAN	ਪਹ, trace Gravel; dry to wet (fill)		6.7	
_	HH			'2		
5	444	•				e de la companya de l
· <u>}</u>	m			- 1	. 4.9	
<b>}</b> -	444	·				
- <u>+</u>	工工工					
. [	HH					A* .
}	444				:	
Ţ.	HH		•		56.8	Trace free product.
<u>}</u> -	444					
	Mil	Black stained fine to coarse SANI	) little Grount tenne Cills was tour		•	
· <u>L</u>	TT	orack stained fine to coarse SANL	o, intre draver, trace diff; wet (fill)	· •		
	444					
· }	727				•	
Ţ	HH					
0 }	4444					
_	M				22.3	
<u>}</u>	444					
- K	TT	*				
F	HH					
· · · · · · · · · · · · · · · · · · ·	474				5	
- 1	m	No recovery				
	M	No recovery				
Į.	444				' ·	
- <u> </u>	444					
Ĺ	H					
· .	4444				· .	
	四口					
. (	<del>}</del>	<b>.</b>				
<u>15</u>	444				·	
T.	M					
J-	4444	·				
	44		· · · · · · · · · · · · · · · · · · ·		1	Daham after to the
		•		-		Bottom of boring 16 feet below land surface.
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age i	01 1		2011110 200			* *	
WELL NO.	4 (00 0)	NORTHING	EASTING				
PROJECT N	-1 (SB-2) O/NAME		LOCATION				
	/ FCRC 2nd Av	enue MGP Site	124-136 2nd Avenue				
APPROVED	8Y	LOGGED 8Y	[				
S. Glash		D.Moss	Brooklyn, New York GEOGRAPHIC AREA				
	ONTRACTOR/ORILL	and the second s	GEOGRAPHIC AREA				
DRILL BIT D	iociates inc / P.	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING I	METHOD	START-FINISH DATE	
	ve Sampler	2-inches	/ Geoprobe	2" Macro		1/2/02-1/2/02	
	ACE ELEVATION	DEPTH TO WATER	8ACKFILL				
(FT.)		(Feet BLS)	Cuttings/Bentonite Pellets				
				Olavi	PID	7,10	
Depth. feet	Graphic Log	Visual [	Description	Blow Counts	Values	REMARKS	
TEEL	rog			oer 6"	(ppm)	<sub>1</sub>	
		Fine to medium SAND, trace Silt, to (fill)	race Gravel, trace Glass, trace Brick; dry		0.0		
•		· ·		:			
						,	
	HHH				225		
						1.	
	HH						-
	1444			. 1		,	
	· H+++	Black stained fine to coarse SAND	, trace Brick; dry (fill)		71.2	Strong odor	
_							_
5	HHH	4.					_5
					58.4		
	HHH.					·	
	HHH	Black stained SILT, trace fine to me	edium Sand, trace brick; wet (fill)		201		
			1				
	HHH				204	Free product.	-
					221	i ras producti	
	HH	Black stained coarse to fine Sand a	and Silt, trace Gravel, trace Brick; wet (fill)	)			
•							
	PFFF		$(x_1, x_2, \dots, x_n) = (x_1, \dots, x_n) \in \mathbb{R}^n \times \mathbb{R}^n$	. 1			-
10	h+++1			44.0	•		10
<del></del> .	HHH	Brown coarse to fine Sand and Silt	, trace Gravel; wet (fill)				٠.
			<del></del>				
	H						•
**				7,5			
	HHH	Dark brown SILT, some fine to med	fium Sand, trace Gravel; wet			9	
. '							
	FFFF				•		-
	F4441						
	THAT I				•		
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15	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	PEAT		<b></b>			15
	1, 24, 24			1			
			<u> </u>				_
						Bottom of boring 16 feet	
						below land surface.	



age 1 o	of 1	NORTHING	BORING LOG			. <del></del>
ASW	.9	NORTHING	EASTING			
PROJECT NO./N	AME	<u> </u>	LOCATION	·		
		renue MGP Site	124-136 2nd Avenue			
						•
. Glash	RACTOR/DRILL	D.Moss	Brooklyn, New York GEOGRAPHIC AREA		· .	<del></del>
			Area A			
RILL BIT DIAME	ates Inc / P.	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING N	METHOD	START-FINISH DATE
2-in. / Drive S	Sampler	2-inches	/ Geoprobe	2" Macro-		1/8/02-1/8/02
2-in. / Drive S AND SURFACE	ELEVATION	DEPTH TO WATER	BACKFILL			
(FT.)		(Feet BLS)	Cuttings/Bentonite Pellets			
				-		
	<del></del>					
epth.	Graphic	Viend	Doggainting	8law	PID	DEMARKS
feet	Log	visuai	Description	Counts per 6"	Values (ppm)	REMARKS
		Brown to black stained fine to me	dium SANO, trace Gravel, trace Brick		<b></b>	T
	HH	trace Coal Fragments; dry (fill)				
_						
	HIF	· .			3.5	
4	FFFF					
-	HH					
	FFFF	,				
	THAT .			1 1		
					3.5	Strong odor.
	PART					_
	HHH	<b>}</b>				
	h++++	Brown to black stained SAND, so	me Silt, trace Gravel, trace Coal			
	mm	Fragments; dry to wet (fill)				
_	HH					}
	pret				148	
•	HH	1				
	FHH		•			
	ppp					
	P+++					·
	mm			,	237	Strong odor and free product
	+++++			* .	· .	
	litte	Gray to green Silt and fine Sand;	wet (fill)		•	
	mm	Gray to green out and line Sand;	wer (m)			1
	HHH					<u>'</u>
. * .	mm					
	HH			1.00		
_			•			
	HH		·		32.9	
	ptt		•			
	HH			- '		
	HH					
	HH	No recovery				"
	<b>EXE</b>					·
	14444					
	四位					
	P++++					
	四世					
	F++++					
-	四位		• •			
	HH		•			
	PT-PT-	<u> </u>				
						Bottom of boring 16 feet below land surface.
					1.75	
						. <u></u>
				· ·		



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PROJECT NO /NA 92401Y02 / FC		venue MGP Site	LOCATION 124-136 2nd Avenue		•	
APPROVED BY		LOGGED BY		•		•
S. Glash		C. Battista	Brooklyn, New York GEOGRAPHIC AREA	····		
ORILLING CONTR						
AQUITO DI DIAMET	y & Testin	g, Inc. / S. Miller BOREHOLE DIAMETER	Area A  DRILLING EQUIPMENT/METHOD	SAMPLING M	(ETHOD	START-FINISH DATE
4.25-in. / Auge	r	8-inches	Mobile Drill B-61 / HSA	2" Split S		3/19/02-3/19/02
AND SURFACE &	LEVATION	DEPTH TO WATER	BACKFILL	LA OPINCO		10.10.02 0.10.02
(FT.)		(Feet BLS)	Grout .			
	· 					
epth, feet	Graphic Log		Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	HH	Light brown medium to coarse SA Coal Fragments; dry to moist (fill)	AND, trace Gravel, trace fine Sand, trace	7	ł	
	m			8	3.1	
	HHH			7		•
	m	7		10	0.8	•
	<u> </u>	Dark brown fine to coarse SAND	, trace Silt, trace Gravel, trace Coal	Ì	1	
	1444	Fragments, trace wood; moist (fil	0	7	7	
	四位			6	0.0	
	HH			7 1		
	四位			6	3.2	
. <b>.</b>	8-}-{-}-}-	Light brown to dark brown fine to	coarse SAND, little Silt, little Gravel; moist		V.2	4.00
	m	to wet (fill)	COLIGO OFFICE SHIP, HILLE GLEVER, MOISC	10		
5	1444			2	0.0	•
<del></del>	mm	1		3		•
	HH	1		- I IA		
	Litt	1		5	0.0	
	FFFF	Dark brown fine to coarse SAND, trace Gravel; wet (fill)	, some Wood, some Organic Material,		<b>]</b> [	
	MM				2.4	
	FFFF	}		-	[] ]	
٠	HH					
	HH				4.7	
	444	Brown to dark brown fine to coars	se Sand and Silt, little Organic Material,	3		
	mm	little Coal Fragments, trace Ash;	wer (na)	2		
• •	HHH					
	m			1 - 1 - 1	2.6	
10	HH	1		1 1		
	HELL	Dark brown to black stained SAN	D, some Gravel, some Silt; wet (fill)	3	[	
	FFFF		and the second second			
-	m			2	1 4 1	
	FFFF			4	\ <u> </u>	
	AH	]		6		
. •		Brown to black stained fine to coa	arse Sand and Cinders, and Ash, some		[	
	HH	Coal Fragments; wet (fill)		·   ·	<u> </u>	
-	mm		was the second of the second o			
	HH	1			2.6	Organic odor.
	四口口					
-	HH				. [	
	CATA			_  •	1	
<u>5</u>	11 11 1	Brown PEAT; moist			[] . ]	
<del></del> -	F 57 57				1	Organic odor.
	44 44 4				W 1	
	لسيسيد	<u></u>			l l	
					: !	Bottom of boring 16 feet below land surface.
				1.		JOIOW IAING SUNACE.
				1.5		



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WELL NO. AN-12		NORTHING	EASTING				
PROJECT NO./NAM	iE	<u></u>	LOCATION				
92401Y02 / FCI	RC 2nd A	venue MGP Site	124-136 2nd Avenue		1000		
APPROVED BY		LOGGED BY					
S. Glash	0700.00	C. Battista	Brooklyn, New York			·····	
DRILLING CONTRA			GEOGRAPHIC AREA			4	
Aquiter Drilling	L& Testir	ig, Inc. / S. Miller   BOREHOLE DIAMETER	Area A  DRILLING EQUIPMENT/METHOD	SAMPLING	METUOD	START-FINISH DATE	
4.25-in. / Auge		8-inches	Mobile Drill B-61 / HSA	2" Split S		3/19/02-3/19/02	
LAND SURFACE EL	EVATION	DEPTH TO WATER	8ACKFILL	12 Spile S	poori	[3/13/02-3/13/02]	<del></del>
(FT.)		(Feet BLS)	Grout				
Depth,	Cenabia			Blow	PID		
feet	<ul><li>Graphic Log</li></ul>	Visu	al Description	Counts per 6*	Values (ppm)	REMARKS	
		Light brown fine to coarse SA	ND, trace Gravel, trace Silt, trace Brick; moist	<del></del>	(bb)		
	M	(fill)	in 12, 1240 Oldren, 1200 Old 11000 Ollon, 11000	11	<b>T</b>		
	1444	· · ·	•	9	Ti i		
	DD	]	4	1			
	HH	-1	•	8	0.0		
	<b>F</b> -F-F-4	_		12			
	13111	Links hanning Early ages - CA	AID trans Cround trans Oils to a Balai	1 1			
	pth	Light brown tine to coarse SA (fill)	ND, trace Gravel, trace Silt, trace Brick; moist	10		•	
	HH	٠,,		6	A	•	
	HH	<b>-</b>		"	[ ]		
	m			. 5	0.0		
	1444	1		_	<b>A</b>		
	<b>K</b>			7			
	HH		nd and Gravel, trace Silt, trace Brick, trace	3 1			
		Coal Fragments; moist (fill)			<b>T</b>	•	
5	M	1		6	0.0		_
<del></del>	HH		ND, trace Gravel, trace Silt, trace Brick; moist	9			_
. *	4444	to wet (fill)			A I	* *	
	m	7		4 .	0.0		
* -	HH	Light brown fine to coarse SA	ND, trace Gravel, trace Silt, trace Brick, wet	- }			
•	HH	(กี้ไ)					
,	m				TI I		
	HH	1	•		0.0		
	1	· ·			0.0		
	m			]			
• • .	8 }_}_}	Light brown to dark gray fine	to coarse SAND, little Silt, trace Gravel; wet				
	M	(fill)	to tour or a replanta only made crosses, may				
	444	1			<b>V</b>		
• •	un	Dork group to brown and groom	a Silt and fine Sand, some Organic Material;	1	<b>}</b>		
	am	wet (fill)	i sili and line sand, some Organic (galeiral,		2.4	•	
	1777	1				Odor.	
10_	1444	Sec. of the black stand flow to	CAND BUIL CU BALL O				-
•	777	trace Gravel, trace Coal Frage	coarse SAND, little Silt, little Organic Material, ments: wet (fill)	'   • • •			
	m	1 1100 010101 11000 0001 11001	mond, not (m)		<b>y</b> ) 1		
	1	1		. [	1		
	m	]			3.6	Odor	
	HH	1			A I		•
	444	1	•	1			
	HH		SAND, trace Gravel, trace Silt, trace Coal	l i			
	FFF	Fragments; wet (fill)			<b>y</b>   ··		
	HH				4.0		
	1444	4		. [ .]	<u> </u>	Odor.	٠.
	DITT	<b>j</b>		1	1	•	
	HH	1					
	باللب	<u> </u>		!	'	Battom of baring 14 feet	
and the second second					1	pelow land surface.	



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rojen na							
WELL NO.		NORTHING	EASTING				
BNE-E-2	<u> </u>	<u> </u>			·	<u> </u>	
PROJECT NO /NAM	1E		LOCATION				
		venue MGP Site	124-136 2nd Avenue				
APPROVED BY	NO ENG A	LOGGED BY	<b>⊣</b>				
S. Glash		D.Moss	Brooklyn, New York GEOGRAPHIC AREA				
DRILLING CONTRA			GEOGRAPHIC AREA			→ 147	
Roux Associate	es Inc / C	. Battista					
ORILL BIT DIAMETE	R/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING N	/ETHOD	START-FINISH DATE	ē
		2-inches	/ Geoprobe	2" Macro-		1/11/02-1/11/02	
2-in. / Drive Sau	EVATION	DEPTH TO WATER	BACKFILL	14 Macio	COLE		
	CANTION			•	•	26.7	
(FT.)		(Feet BLS)	Cuttings/Bentonite Pellets			· · · · · · · · · · · · · · · · · · ·	
[			•				
Depth,	Graphic	<b>M</b>		Blow	PID		
feet	Log	Visua	l Description	Counts	Values	REMARKS	
Ĺ			- 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	per 6°	(ppm)		
			), trace Silt, trace Gravel, trace Brick; dry		2.1		
		→ (fill)		1	. ~		
		<del>-</del>				4.4	
· • •	KAH	٠	•			i i	-
	KAAA	٦					
	KAHA	1		1			
l	ELAA	7			•	1 1 1 1 1 1 1	
[	Day			<b> </b>	<b>-</b>		•
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<b>}</b> • • •	HIL	7	*				
	M	7					
· ·		4	4	1 1		1 '	
	HHH	4					
† · · ·	8 3 3 3 3	Brown to black stained fine to co	parse SAND, some Brick, some Concrete;	1		i	-
		moist (fill)	sales of a 12, series of the Control of the		7.0		
		1110101 (1111)		1 1	l	İ	
5	MM	]	·				_5
		-]					
	<b>}</b> ~}~}~}	- I		1	96.3	I	
	K++++	Black stained fine to coarse SAI	ND, trace Silt, trace Coal Fragments, trace	(	96.3	Į	
1	1444	Ash; moist to wet (fill)			`	·	-
- 7	here	7			·	1	
	m	7					100
			•	.	26.7	l	
	LILI						
			· · · · · · · · · · · · · · · · · · ·			l	
· · · · · · · · · · · · · · · · · · ·	H	_				r <sup>ta t</sup>	
• • •	1111111	Black stained fine SAND, little S	ill trans Carroll wat (611)	\		ł	-
	hope	Black stained line SAND; fittle S	iit, trace Gravel, wet (iiii)		5.5	l e .	
				1.7			
							_
	. $UUU$	]		1.		Trace free product.	
		1		1.0			
10	hara to	1			i i		10
<del>-10</del>	131, 131, 1	Cross to assu Bast and Clay to	an Cilly wat			ı	_10
	1 <del></del>	Green to gray Peat and Clay, tra	oce only wet		i i		
F 4 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	17 77 77		,			·	
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	4 34 34						
	1				- T.		
• • •	<u>送送</u>	Cason to case Ocations Cla	on Cond team City	.   * *			•
•			ice sand, trace siit, wet		<b>■</b> • • • •		
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	1/ 24 24					and the second second	
		A contract of the contract of			ı i		
15_	40 40 1	1				•	. 15
	7 77 77					-	
	15 50 3	1					
2.4		<del></del>			■ !		
			and the second s			Bottom of boring 16 feet below land surface.	•
				1.0		oelow land surface.	
	4					and the same	
						A CANADA	



F	age 1 of	1	SOIL	BORING LOG		•		
٦	WELL NO.		NORTHING	EASTING				
_	BNW-2 (BOV	N-2)						
	PROJECT NO /NAM			LOCATION 124-136 2nd Avenue				
.	92401Y02 / FC) APPROVED BY	RC 2nd Av	venue MGP Site	124-130 Zila Avellae				
	S. Glash		D.Moss	Brooklyn, New York				
H	DRILLING CONTRA	CTOR/ORILL	ER	GEOGRAPHIC AREA				
Ţ	Roux Associate DRILL BIT DIAMETE	R/TYPE		DRILLING EQUIPMENT/METHOD	SAMPLING M		START-FINISH DATE	
L	<mark>2-in. / Drive Sa</mark> LAND SURFACE EL	mpler	2-inches	/ Geoprobe	2" Macro-	Core	1/10/02-1/10/02	
- [ '	LAND SURFACE EL	EVATION	DEPTH TO WATER	BACKFILL				•
⊢	(FT.)		(Feet BLS)	Cuttings/Bentonite Pellets				
-					•			
-	****							
	epth,	Graphic	Vienall	Description	Blow Counts	PID Vatues	REMARKS	
	feet	Log	VISUALI	3 each peron	per 6*	(ppm)	(1211011110	
F		THE	Dark brown fine to coarse SAND, t	race Gravel, trace Brick; dry (fill)				
1		F++++	}		1 .	1	,	
		THE PARTY						
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		加加	]	-				
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ŀ	•*•	mm		•				
1	* .	HHH	1			3.2		
		四世	1			•		
ŀ		HHH	1				Gran product	• •
	·	ppp					Free product.	
ŀ		HHH						
ļ	• •	Hill	1					
		F++++	Gray to brown fine to medium SAN Fragments, trace Ash, trace Brick;	D, some Silt, trace Gravel, trace Coal				
1		m	Tragments, trace Asia, trace Office,	moist to wet (mi)			Ì	
· L	<u>.</u> 5	HHH						5
ſ		m				61.4	,	
		HHH						
-		m				1.		
ı		FFFF			-			•
		m						
		HHH						
t	·	DD		•		126		• .
		Fff				120		
		m						
. ·  -		F	Black stained fine to coarse SAND	, some Silt, trace Gravel, trace Ash; wet				
		AH	(fill)	,				
1		FFFF	1					
-		HH				•	4 .	-
		FFF	1		•	•	-	
		HH	]					
}	10	FFF					Eron graduat	10
		田田				665	Free product.	
N		HHH				ŀ	• .	•
2		m	1					4.
7		F++++	<b>\</b>			Ċ		
읈.		M						
šI.		FFFF	<b>{</b>					
2		HHH	Black stained fine to medium Sand	and Silt, trace Gravel; wet (fill)			Odor and free product.	
٥		pp			1		[-	
7		HH	1			175		
핞	• •					<b>-</b>	Refusal at 13 feet below la	and
BORINGAWELL ENDPOI-1.GPJ ROUXGDT 4/22/02							surface.	
Ã	-							100
Š	•							
훒			$(x_1,\dots,x_{n-1}) = (x_1,\dots,x_{n-1})$			1		
ăL				<u> </u>	<u> </u>			



ROUX ASSOCIATES, INC.

Environmental Consulting

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& Management SOIL BORING LOG Page 1 of 1 WELL NO. NORTHING BS-1 (SB-9) PROJECT NO./NAME LOCATION 124-136 2nd Avenue 92401Y02 / FCRC 2nd Avenue MGP Site APPROVED BY LOGGED BY Brooklyn, New York S. Glash D.Moss DRILLING CONTRACTOR/DRILLER Zebra Environmental Inc / L. Davis Area B BOREHOLE DIAMETER SAMPLING METHOD START-FINISH DATE DRILL BIT DIAMETER/TYPE **DRILLING EQUIPMENT/METHOD** 1/4/02-1/4/02 2-in. / Drive Sampler 2-inches / Geoprobe 2" Macro-Core LAND SURFACE ELEVATION DEPTH TO WATER BACKFILL (FT.) (Feet BLS) **Cuttings/Bentonite Pellets** Blow Depth, Graphic Visual Description Counts REMARKS leet Log per 6\* (ppm) Brown fine to coarse SAND, trace Gravel, trace Brick; dry (fill) 1.8 Black stained coarse Sand and Gravel, trace Silt, trace Brick; dry (fill) 253 Black stained fine to medium Sand, and Silt, trace Gravel; wet (fill) Strong ador. 125 Gray Silt and Peat; wet 4 24 24 12.1 Gray SILT, little Sand, Little Clay; wet 11.8 Brown Peat and gray Silt, some Sand; wet 12.7 24 1 6.1 10 10 44 44 보신 선 13.2 Gray to brown SILT, little Clay, trace Sand; wet Free product. 234 Brown SILT, little Sand, trace Gravel; wet 12.1 Black stained Sand and Silt; wet ROUXGDT 59.5 Brown to black stained Sand and Silt; wet 28.7 15 15 GP. ENDPOIL Bottom of boring 16 feet

below land surface.



WELL NO			NORTHING	EASTING	7	<del></del>	<del></del>	
000 1505	BS-2		<u> </u>	LOCATION	<del></del>	·	· · · · · · · · · · · · · · · · · · ·	
02404 <b>V</b> (	NO./NAM	ር ያር ንክժ ል	Venue MCP Site	124-136 2nd Aven	ue ·			*
APPROVE	D 8Y	C ZIIU A	venue MGP Site	-				9
S. Glash			D.Moss	Brooklyn, New Yo	ork	•		
DRILLING	CONTRA	CTOR/DRIL	LER	GEOGRAPHIC AREA				
Roux A	ssociate	s Inc / P	. Barczak			·		······································
	DIAMETE		80REHOLE DIAMETER 2-inches	DRILLING EQUIPMENT	METHOD	SAMPLING M 2" Macro-C		START-FINISH DATE
LAND SUE	rive Sar	EVATION	DEPTH TO WATER	/ Geoprobe BACKFILL		Z Wacio-C	ore	1/10/02-1/10/02
(FT.)			(Feet BLS)	Cuttings/Bentonit	e Pellets	•		•
					<del></del>		<u> </u>	<u> </u>
<b>.</b>				•		Blow:	윈	
Jepth, feet		Graphic Log	Visual	Description	•	Counts	Values.	REMARKS
		X-1-1-1-1	Orange to brown fine to coarse Sa	AND Irona Sill Irona Com	al leage	per 6"	(ppm)	
		m	Concrete, trace Brick; dry (fill)	AND, trace oit, trace Gravi	si, trace		3.4	
		1444	4	(x,y) = (x,y) + (y,y)	-			
		m	]		4.			
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		口口	1	•				
		HH	-		•		4.	
4.	•		9-1		<del></del>			
		77.77.7	Green to grey Peat and Clay, som	ie Sanu, some Sia;			7.6	
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		20 20 3	1			1.		
		2 24 24						
3_ '		F 75 75	<u> </u>	. 143	•		· ·	attom of boring 8 feet below
							i:	ind surface.
						-		••
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1377 Motor Parkway Islandia, NY Telephone: 631 -232-2600 Fax: 631-232-9898

& Management **SOIL BORING LOG** of Page WELL NO. EASTING NORTHING CB-1 LOCATION 124-136 2nd Avenue PROJECT NO./NAME 92401Y02 / FCRC 2nd Avenue MGP Site APPROVED BY LOGGED BY S. Glash D.Moss Brooklyn, New York DRILLING CONTRACTOR/DRILLER GEOGRAPHIC AREA Aquifer Drilling & Testing, Inc. I BOREHOLE DIAMETER DRILLING EQUIPMENT/METHOD SAMPLING METHOD START-FINISH DATE DRILL BIT DIAMETER/TYPE CME-75 / HSA BACKFILL 2" Split Spoon 1/17/02-1/17/02 4.25-in. / Auger 8-inches LAND SURFACE ELEVATION DEPTH TO WATER (Feet BLS) **Cuttings/Bentonite Pellets** (FT.) 8low PID Graphic Depth, Counts Values REMARKS Visual Description oer 6" (орт) Brown fine to coarse SAND, trace Gravel, trace Concrete, trace Brick; dry 1. 13 62.4 26 38 34 Green to black stained fine to medium SAND, some Silt, trace Gravel, trace Brick trace Coal; moist (fill) Strong odor. 650 6 Brick and Gravel, trace Sand; moist to wet (fill) 16 31 7 Strong odor and free product. 960 46 ENDPOI-1.GPJ ROUXGDT Refusal at 8 feet below land surface.



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Aguif	er Drilling	8	Testin	g, Inc. / J. Philbin BOREHOLE DIAMETER	J			
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3 7/8	inch / Tri-t	Col	<u>1e</u>	4-inches	CME-45 / Drive and Wash	2" Split S	poon	2/28/02-2/28/02
LAND S	SURFACE EL	EVA	TION	DEPTH TO WATER	BACKFILL			
(FT.)				(Feet BLS)	Grout			
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Page 1 of 1	5	OIL BURING LUG		
WELL NO.	NORTHING	EASTING		_
CN-12		<u> </u>		
PROJECT NO./NAME		LOCATION		_
92401Y02 / FCRC 2nd	d Avenue MGP Site	124-136 2nd Avenue		
APPROVED BY	LOGGED BY		•	

S. Glash

DRILLING CONTRACTOR/DRILLER Brooklyn, New York GEOGRAPHIC AREA D.Moss

Aquifer Drilling & Testing, Inc. / J. Philbin
DRILL BIT DIAMETERTYPE BOREHOLE DIAMETER
3 7/8 inch / Tri-Cone 4-inches
LAND SURFACE ELEVATION DEPTH TO WATER DRILLING EQUIPMENT/METHOD SAMPLING METHOD START-FINISH DATE CME-45 / Drive and Wash BACKFILL 2" Split Spoon 3/1/02-3/1/02

(Feet BLS) Grout (FT.)

epth. eet	٠.	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
		THH	Brown to tan fine to coarse SAND, trace Gravel, trace Brick; dry (fill)	12		
		*++++		15	<b>!T</b> }	
					1]]	- **
		HILL		25	i 🛦 i	
		HH		31		
- '		1444	Brown to tan fine to coarse SAND, trace Gravel, trace Brick, dry (fill)			<u>.</u>
		mm	blowit to tall line to coalse SAND, trace Gravel, trace Blick, dry (fill)	24	4.5	
		DIII.		30	<b>   </b>	
• -		· H++++		36		
		HHH			I <b>≜</b> l	
		ppp		42		
-		m	Green and brown to black stained fine Sand and Silt, trace coarse Sand,	1	<b>15</b>	
			trace Gravel, trace Wood; wet (fill)	•	₹	
5		**		1	]	_
	•	PATA -		1	55.1	Slight odor.
		DOD		_	A	
-		HILL		1		
		P+++	Brown to green fine to coarse SAND, little Silt, trace Gravel, wet (fill)	2	T	
		*++++		. 4	▼	
				'	111	la
		mm		1 '	17.6	Slight odor.
		1777		1 .		•
-		P++++	Dock brown to block chained fine to medium CAND, little City to an Occupa-			
		HAHA	Dark brown to black stained fine to medium SAND, little Silt, trace Gravel; wet (fill)		V	
		DITT	wer/im)		<b>Y</b>	
-	•	MM			111	· · ·
		F++++			37.8	
0	* -	p++++				
<u></u>			No recovery			
		mm			V	
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		FEFF			<b> ≜</b> \	
-		1777	No recovery	٠.		
		H			IV.	
		hitit				
		*+++	Brown fine to medium SAND, some Gravel; wet (fill)		<b>                                    </b>	
		Phyth				
•						
		1777				
5		**		  -	<b>   </b>	
<u> </u>		HATT		: 		
					2.8	* .
		HILL		:		
-		<u>"[47-77-7</u> 2]	Green and gray Clay and Silt, little Peat; wet	1 17		
				1	¥	
		F 77 77			<b>↓▼</b> ↓	
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		1 14			4.5	•



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/ELL NO. CN-5		NORTHING	EASTING				
ROJECT NO./NAM	iε	<del></del>	LOCATION				
		enue MGP Site	124-136 2nd Avenue		•		
. Glash	,	D.Moss	Brooklyn, New York				
RILLING CONTRA	CTOR/DRILL		GEOGRAPHIC AREA			<del></del>	
guifer Drilling	& Testing	g, Inc. / J. Philbin BOREHOLE DIAMETER				•	
			DRILLING EQUIPMENT/METHOD	SAMPLING M		START-FINISH D	ATE ·
7/8 inch / Tri-	Cone	4-inches	CME-45 / Drive and Wash	2" Split S	poon	2/20/02-2/20/0	02
ND SURFACE EL		DEPTH TO WATER	8ACKFILL				
-T <u>.</u> )		(Feet BLS)	Grout			···································	
			·				
olh,	Graphic	141		Blow	PID	5.5	
el	Log	·	al Description	Counts per 6"	Values (ppm)	REMARKS	
-		Tan to fine to coarse SAND, to (fill)	race Gravel, trace Brick, trace Concrete; dr	У а			
•	MM	<b>,</b> ,		21	[]. I		
•	4444		•				
	mm			23	<u> </u>		
	HHH			31			
		Tan to black stained fine to co	parse SAND, trace Gravel, trace Brick, trace	e   🖁			. •
	HHI	Concrete; dry (fill)		15	<b>!</b>		
	1444			17	5.2		
•	mm			22	i	Slight odor.	
	14444				<u> </u>		
	MAH	•		37	33.0		
	1444		medium SAND, some Silt, trace Gravel; we	et 2	33.0	·	
	my	(fill)		_	<b>l</b> i i		
-	HIIII			2	[]		
	14444			1 1	4.0	Slight ador.	
	mm				Al I		
	\$-}-}-}-	Black stained modium to coo-	se SANO, little Gravel, trace Silt, trace fine				
	mm	Sand; wet (fill)	se onno, inno Gravel, trace silt, trace fine	·   IT		·	
	HHA			[ [		٠.	
	FFT	** *				Slight odor.	
	m				5.7		
	4444		And the second second				
	recet	Brown to green SILT, little Cla	y, trace fine to coarse Sand, trace Gravel;	wet		•	
	1444	(fill)			/	-	
	DETH			l II			
	HHH				2.3		
•	K4444				<u> </u>		
_	MI			.   **			
•	FFFF	Black stained medium to coars wet (fill)	se SAND, little Gravel, trace Silt, trace Bric	K; .			
$(x_1, x_2, \dots, x_n) \in \mathcal{A}$	四四	uer / mi			/  .		٠.
	4444						
	ppp			<b>   </b>	4.7		
	HHH			·		}	
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* *	14444				/	ı	
	四四			]	il l	ı	
	HHH			·	<b>i</b> )		
	アンナナ	•					
	1777	Dark brown to black stained co	oarse Sand and Gravel, trace fine Sand, tra	3Ce			
	FFFF	Silt; wet (fill)					
<u>.</u>	min				3.8		
	그는 그는 각	Peat and Clay; wet		] []	. 1		
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					¥ · [	Battom of boring 16 fe	



1377 Motor Parkway Islandia, NY Telephone: 631 -232-2600 Fax: 631-232-9898

SOIL BORING LOG

WELL NO.	NORTHING	EASTING		
CN-6				
PROJECT NO /NAME		LOCATION		
92401Y02 / FCRC 2nd A	venue MGP Site	124-136 2nd Avenue		
APPROVED BY	LOGGED BY			
S. Glash	D.Moss	Brooklyn, New York		
DRILLING CONTRACTOR/DRIL	LER	GEOGRAPHIC AREA		
Aquifer Drilling & Testir	ng, Inc. / J. Simmons			
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
3 7/8 inch / Tri-Cone	4-inches	CME-45 / Drive and Wash	2" Split Spoon	2/6/00-2/6/00
LAND SURFACE ELEVATION	DEPTH TO WATER	BACKFILL		
(FT.)	(Feet BLS)	Cuttings/Bentonite Pellets	•	. *

	**		0.0.0.0		m)		
		- 1	0000			!	
			976	Black stained fine to medium SAND, trace Silt, trace Gravel, trace Brick, 20	I	'	
			HH	trace Coal Fragments; moist (fill)			
		: {	ttt	38			
		(	+++++	25 9.	.7	Slight odor.	
			m	15			
			<u> </u>	Dark beaus to black stained fire to medium CAND, some City maint (611)			•
		- (	1777	Dark brown to diack stained line to medicin SAND, some Sir, moist (iii)			
		}		. 7			
			HH	Dark brown to black stained fine SAND, some Silt; moist (fill)	ı		
_		. (		2 1.	5		
5_		1	<u> </u>	Clark shrings again SAND Blue Arb troop Silk troop Crewal was (SIII)	-		
		Ì	H	Black stained coarse SAND, little Ash, trace Silit, trace Graver, wet (IIII)			
				1 2.	.1		
			444	No recovery 2	'		
		1	四四				
	-		H+++		,	ļ	
			pp		-		
		- {	++++	1 1		'	
• •		Ì	LLL1	No recovery			
		ļ					
		]	PP		İ		
		1		1 1			
10			1777				
			444	Gray to black stained fine to coarse Sand and Gravel, trace Silt, trace Wood, trace Coal; wet (fill)			
				Wood, trace Coal; wet (fill)			
		.	HH				
		.	$\pi\pi$	<b>0.</b>	0		
		- (	1111	kan kanang pada balan sa kanan sa kanan sa katalan sa 🏙 🗸	1	1	
		٠. }	1777	Black stained coarse Sand and Coal Fragments, trace Glass; wet (fill)			
			上口	3			
		- (	1111		. !		
		- }		3 <u>3</u> 0.	0		
	•	)	1777		1		
• -		Ì	1777	8lack stained coarse SAND, some Coal Fragments, trace Silt, trace Glass;			
	-	. }	-	wet (fill)	,		
5_			<u> </u>		′		
		- 1		PEAT	1		
		. }	1 40 10				
• •						Battom of boring 16 fe	et
						below land surface.	
					à. '		
	一点 医多克克			en in the contract of the contract of the contract of the contract of the contract of the contract of the cont			



BORINGAWELL

1377 Motor Parkway Islandia, NY Telephone: 631 -232-2600 Fax: 631-232-9898

SOIL BORING LOG Page of 1 EASTING WELL NO. NORTHING CN-7 LOCATION 124-136 2nd Avenue PROJECT NO/NAME 92401Y02 / FCRC 2nd Avenue MGP Site
APPROVED BY LOGGED 8Y
S. Glash D.Moss Brooklyn, New York DRILLING CONTRACTOR/DRILLER GEOGRAPHIC AREA Aquifer Drilling & Testing, Inc. / J. Philbin
DRILL BIT DIAMETER/TYPE | BOREHOLE DIAMETER BOREHOLE DIAMETER DRILLING EQUIPMENT/METHOD SAMPLING METHOD START-FINISH DATE 3 7/8 inch / Tri-Cone LAND SURFACE ELEVATION 4-inches CME-45 / Drive and Wash 2" Split Spoon 2/20/02-2/20/02 DEPTH TO WATER BACKFILL (FT.) (Feet BLS) Grout

eolh, eet	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
	00000	CONCRETE			
	12.	GRAVEL			
	<del>-1-1-1-1-1</del>	Dark brown medium SAND, trace Sift, trace Gravel, trace Brick; moist (fill)			•
$(-1,-1,-1,-1) \in \mathcal{F}$	mm	bull drown medical extra faced dist, about drawn, about briefly miles (Mily		Y)	
	HHH				4
-	THE PARTY	Black stained to tan medium SAND, little green Silt, trace Brick; moist (fill)	1	ì	
	HHH			<b>v</b> .	
_	mm			11	
	1		]	2.6	
• *	<b> </b>	Black stained medium to coarse SAND, little Silt, trace Gravet, wet (fill)	]		
•	mm	DIGON STATUTE (HIGGINET TO CORISE OFFICE, MILE OIR, MILE OIRVEI, WELL (IIII)	7		
	14444		2	<b>T</b>  .	
	ppp		2	1.9	
	HHH		]	<b>a</b> ]. '." )	
	HAAA		4		
	HHH	Gray to black stained coarse Sand and Gravel, some Coal Fragments, trace	5		
	HHH	Silt; wet (fill)		<b>v</b>	
	mm		1	<b>!</b> }	
*	1		1	0.8	
	mm		1		
•	8-3-3-3-3-1	Gray coarse Sand and Gravel, trace Silt, trace Coal Fragments, trace Shell	)		
	$\overline{m}$	Fragments, wet (fill)			,
	HHH		)	<b>T</b> ) . 1	
	ppp		.: [	2.9	
	mm			2.9	
	14444		l l		
	HHH	Gray coarse Sand and Gravel, little Silt, trace Coal Fragments, trace Ash;	4	1	
	· }++++	wet (fill)			•
	mm		2		
•	14444		1	2.1	
	mm				
	8-}-}-}-}-	Gray Gravel, little Sand, trace Shell Fragments, trace Ceramic Fragments;	)		
:	mm	wet (fill)	4		
100	14444		3	<b>v</b>	
	ppp		2	5.3	
	HHH		•	<b>1</b> 3.5	•
	P4444		1		
	27.77	Peat and Clay, wet	ı		
	2 20 20				
_	21/21/2		l.	ا ا	
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	6 57 57				
*	101, 34, 31		, ,		



BORING/WELL ENDPOI-1.GPJ ROUX GDT 4/17/02

1377 Motor Parkway Islandia, NY Telephone: 631 -232-2600 Fax: 631-232-9898

WELL NO.							
		NORTHING	EASTING				
CN-8 PROJECT NO./NA	wE		LOCATION				
92404V02 / FC	RC 2nd A	venue MGP Site	124-136 2nd Avenue				
APPROVED BY	NG ZIIU A	venue MGP Site LOGGEO BY					
S. Glash		D.Moss	Brooklyn New York				
DRILLING CONTR	ACTOR/DRIL	LER	Brooklyn, New York GEOGRAPHIC AREA	• •		<del></del>	
			3233,011,107,112,1			• •	
DRILL BIT DIAMET	ER/TYPE	ig, Inc. / J. Philbin   BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING	METHOD	START-FINISH DATE	
3 7/8 inch / Tri	-Cone	4-inches	CME-45 / Drive and Wash	2" Split S		2/8/02-2/8/02	
3 7/8 inch / Tri	LEVATION	DEPTH TO WATER	BACKFILL	( a opine	, <u>poort</u>	ZIGIOZ ZIGIOZ	
(FT.)		(Feet BLS)	Grout				
		(1.00.200)				<del></del>	
			•				
				······································			
Deoth	Graphic	View	al Description	Blow Counts	PID. Values	REMARKS	
feet	Log	VISU	al Description	per 6"	(opm)	VCMNUV9	
		Gray to brown medium to coa	arse SANO, trace Gravel, trace Brick, trace	<del></del>			
	m	Concrete; moist (fill)	and of the those Clavel, trace brief, trace	8		1	
		4		16	₩.	-	
·	4444	1					
	mm	<b>]</b> .		17	A		
	HIII	1	green and a second	26	A	4	
	<u> </u>	- Gray to brown medium to con	arse SAND, trace Gravel, trace Brick, trace				٠, ٠
		Concrete; moist (fill)	alse dand, trace diavel, trace blick, trace	15 .			
	HIII	4		22	7	i	
	HHH	-				,	-
-	HH	ጎ ·	· .	18	<b>.</b>		
	$\overline{m}$	]		27	. 🛋 🗎		
	\$- }- }- }- }	-)	1 4 Alle 7700	"		· ·	
	1444	Grey coarse SAND, some Gr	ravel, trace Sill; wet (IIII)				
		] '		ļ	T I		
5_	HIII	1			11.		_5
	ffff	-l					
	1444	7		1 . 1	<b>A</b> 1		
		7			9		
		Grey coarse SAND, some Gr	ravel, some Silt, little Coal Fragments; wet (fill)			I	
	K++++	1			V		
	m	]		- \	<b>Y</b> 1	1	
	1777	1		i l	1		
	<b>}</b>	<b>√</b>			A I		
	HH			1			
	HH	Grey coarse SAND, some Gr	ravel, some Silt, little Coal Fragments; wet (fill)	1 1			
	*+++	1		l. ' l	♥I.		
		7		1 1	<b>y</b>   .		
	m				1		•
	ffff	4			Al I		
10	HHH	1		.   1   <u>1</u>	•	·   •	10
<del></del>	FIFT	No recovery		- { <del>[</del>			
	HH	-			V	i İ	
	1444	1		]	TI I	1 .	
	DID	]				· · · · · · · · · · · · · · · · · · ·	
•	HIII	1					
	P++++	4		. t			
	TITL	Grey medium to coarse Coal	Fragments, little Silt; wet (fill)	. [ •			•
	HIII	1			<b>T</b>		
	ffff	4			<b>T</b>		
• • •	FFFF	1		- [ ]			
	m			- { ·		1	
	HH	4		·   ·		1 .	
	[ <del>,,</del> <del>}, </del> <del>},</del> ],	Grey coarse Sand and Grave	et some Peat, little Clav: wet			· · · · · · · · · · · · · · · · · · ·	•
			ny verne r very name winey) 110t	· [ ]		,	
45	V 47 47	· ·			Y	· ·	4.6
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		7				,	
	1 70 70	4		1 (			
	34 34 4	1	<u> </u>	· §			_
	(110 110 1					Dattam of hards - 40 f	
· • •	(317/317/3			-		Bottom of boring 16 feet below land surface.	



Page	1 of	1	SUIL	BURING LUG				
WELL			NORTHING	EASTING				
PROJE	CNE-3 CT NO./NAM	1 <u>E</u>		LOCATION				
			venue MGP Site	124-136 2nd Avenue		. '		
APPRO	VED BY	<u>, , - , , , , , , , , , , , , , ,</u>	LOGGED BY	7				
S. Gla	ish		D.Moss	Brooklyn, New York GEOGRAPHIC AREA				
	NG CONTRA			GEOGRAPHIC AREA			•	
ORILL E	BIT DIAMETE	R/TYPE	ig, Inc. / Karl Carli   BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	TSAMPLING M	ETHOD	START-FINISH DATE	
	Drive Sa		2-inches	/ Geoprobe	2" Macro-		1/22/02-1/22/02	
LAND S	SURFACE EL	EVATION	DEPTH TO WATER	BACKFILL				
(FT.)			(Feet BLS)	Cuttings/Bentonite Pellets				
				•				
···*								
Depth,		Graphic	Vienal	Description	Blow Counts	PiD Values	REMARKS	
feet		Log	Visual	Description	per 6*	(bbw)	NEWANIO	
_ <del></del>		HH	Brown fine to coarse SAND, trace	Gravel, trace Brick; moist (fill)				
		FFFF	<u>-</u>					
		HH						-
		m						
		HH	-}.	•		2.1		•
		四四		•				
		HH	1					-
		m			3		,	
			Brown to black stained fine to coa	rse SAND, little Silt, trace Gravel; moist				-
_ ا		HH	(fill)			65.0		_
5	•	m	]			ł	Stight odor.	_5
		1444	1					
		m	Riack stained fine to coarse SANI	D, little Brick, little Concrete, trace Silt;		183		-
		M	moist (fill)	of mile bridge, mile bestered, stade blist		103		
		ppp					Trace free product.	-
		HH	1				Trace has product.	
		HH	Black stained fine SAND, little Silt	trace Brick: wet (FIII)		171		-
		m	DIACK Stained line SAIAD, little Sitt	, trace Brick, wet (all)	A.	:		
		<b>K</b>	<u> </u>		:: [	000		-
		M				320		
10		ppp		•			Odor and trace free product.	10
		HH	_				Odor and trace nee product.	
		m			-			-
		1777	4			57,4	•	
		m	Black stained fine to seems SANI	3 tenan Silla tenan Cenuali wat (FIII)	1 2		et.	-
i		m	Black stained line to coarse SAINL	o, trace Sitt, trace Graver; wet (IIII)			•	
		1777	1	<del>-</del> ·-··.		70.		٠.
		PPP				72.4		
:		HH	Bad to block stained CRAVEL litt	le Sand, little Silt, trace Wood, wet (fill)				-
		m	Red to black stained GRAVEL, litt	ie Sand, little Siit, trace Wood; wat (IIII)				
15		1444	<b>\</b>					15
		THE				121	Free product.	
	4.1	HHH	1					
		m	No recovery			•		
		1		•				-
		四口		•				
		FFFF	1			<u> </u>		-
		M	]	•				
		177						-
		HH	1					
20	i.	RATA	1	· · · · · · · · · · · · · · · · · · ·		I	0.W (Fa.)	. 20
							Bottom of boring 20 feet below land surface.	
	en en en en en en en en en en en en en e		en en en en en en en en en en en en en e					



ROUX ASSOCIATES, INC.

1377 Motor Parkway Islandia, NY Telephone: 631 -232-2600 Fax: 631-232-9898

14400	NO	1		IL BORING LOG				·	
WELL	. NO. CW-1 (SB	-14)	NORTHING	EASTING				•	
PROJ	ECT NO./NA	ME		LOCATION 124-136 2nd Avenue					
9240	11Y02 / FO	RC 2nd A	venue MGP Site	124-136 2nd Avenue		. :			,
S. GI	lash		D.Moss	Brooklyn, New York GEOGRAPHIC AREA					
DRILL	ING CONTR	ACTOR/DRIL	LER	GEOGRAPHIC AREA					
Zebr	a Enviror	imental in FR/TYPE	c / L. Davis   BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	Ts	SAMPLING M	ETHOD	START-FINISH DATE	<del></del>
2-in.	/ Drive S	ampler	2-inches	/ Geoprobe		2" Macro-		1/7/02-1/7/02	
LAND	SURFACE (	LEVATION	DEPTH TO WATER	BACKFILL					
<u>(FT.</u>	)	<del></del>	(Feet BLS)	Cuttings/Bentonite Pellets	<u> </u>			· · · · · · · · · · · · · · · · · · ·	
		_				Blow	PID		
Depth, feet		Graphic Log		al Description		Counts per 6*	Values (ppm)	REMARKS	-
		HH	Brown fine to medium SAND,	, trace Gravel, trace Brick; dry (fill)			•		
		AH			:				
• •		四四	1				•	-	
		FFF							
		HH	-						
		m					8.1		
		FFF		•					
		HH		•					
		m							
• •		HH	Light brown fine to medium S	SAND, dry (fill)					
_		四四	1						
5		HH							-
		FFFF	Black stained fine to medium	SAND, trace Gravel, trace Silt; wet (fill)			0.70		
		HHH.	2 Black statings time to income.	orang made digital made day wat (may			272		
		m				1.	1		
		HH					63.2	Free product.	
		m				: 1		•	
		H	Black stained Sand and Grav	vel, trace Silt; wet (fill)			ŀ		
		bbb						·	
		HH	1		٠.				
		PHH			٠.				
10		m	1						_1
		HH	_				37.1	Free product.	
		HH			•		12		
•		pp	1		-				
		HH				:			
		Ш	Brown to green SILT, little Sa	ind, trace Gravel; wet					
		1777					77.0		
		PH	]				75.2		
		四四	1		j			٠ .	٠.
		FFF							;
		FFFF					. *		
15		四四	1		:				. <u>1</u>
		11111	1	And the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second s				Ī	

Bottom of boring 16 feet below land surface.



1377 Motor Parkway Islandia, NY Telephone: 631 -232-2600 Fax: 631-232-9898

CD 45 CM	,	NORTHING	EASTING				
SB-15-SW PROJECT NO./NAMI			LOCATION				—-
92401Y02 / FCR		ronus MGP Sita	124-136 2nd Avenue				
APPROVED 8Y	C ZIIU A	LOGGED BY					
S. Glash		D.Moss	Brooklyn New York				
DRILLING CONTRAC	TOR/DRILL	FR FR	Brooklyn, New York GEOGRAPHIC AREA	·			
			GEOGRAPHIC AREA			*	
DOILL BIT DIAMSTE	DUANCE	g, Inc. / Kari Carli BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING N	4ETUAN	START-FINISH DATE	
2-in. / Drive San LAND SURFACE ELI	TUATION	2-inches DEPTH TO WATER	/ Geoprobe 8ACKFILL	2" Macro-	Core	1/23/02-1/23/02	
	TATION	(Feet BLS)					
(FT.)		(reet pro)	Grout				
			4				
			4	Blow	PID		
Depth, feet	Graphic Log	Visua	I. Description	Counts	Values	REMARKS	
	Log			per 6*	(ppm)		
		Brown to tan fine to coarse SAI	ND, trace Gravel, trace Brick; moist (fill)				
	4444	<b>√</b> '			a de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de l	1	
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	HH	]					
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	*++++	1		\		<b>1</b> .	
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	DIL	1			2		
	HILL	1			•		
	1	Brown to black stained fine to a	nedium SAND, trace Gravel, trace Silt, trace				
		Brick; moist (fill)	legioni SAND, trace Graver, trace Sitt, trace		4	1	
5	LLL	Brick, frioist (iii)			44.7		
<del></del>		Green to black stained fine SAI	ND, trace Silt, trace Gravel, trace Brick; moist	- F			-
	DDD	(fill)			Æ		
	7777	1 ` '			4		
	+++++				134	Odor and trace free produc	ct.
	化化化化化	Black stained to green Silt and	fine Sand: wet (fill)	1	A ·	Odor and trace free produc	ct
	DD		mile delies, tree (my	1		Cool and trace free produc	٠
		1			108		
	1444						
	先子先先先	Black stained to brown fine SAI	ND, trace Silt, trace Gravel; wet (fill)				
	DDD		The second state of the first		4	İ	
	1	1			2		
	k	1			A		
40	1444	1			Ä		
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	1-7-7-7	1			Æ		٠.,
• •	k++++	1			4	•	
•	HAA	1					
	m	1					
	++++	Brown to black stained fine Sar	id and Silt, trace Gravel; wet (fill)				
	+++++	<b>\</b>			127	ì	
	TITT	]					
	MM	]	•				
	+++++	1			138	Odor and free product.	
•	+++++	1			<b>.</b>		
	k++++	1		1 2 2	60.0		
15	HH	1	<u>.</u>		58.0		_
	+++++	Red to black stained fine SANC	, some Gravel, trace Silt; wet	1.	#		
		1			139	Odor and free product.	
• • · · · · · · · · · · · · · · · · · ·	mi	Black stained fine Sand and Sil	t trace Gravel; wat /fill\				
		Diagnation into deligibility	" MORE CHARLE MEE (1111)				
	MM	]		· •		· ·	
	ffff	1			102		
	+++++	1					
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		]			<b>.</b> .	Free product.	
	M	]		]	<b>a</b> '		
	F++++	1			400		
	++++	1			180		
	k++++	1			4		:
20_	11 1 -2						
20_	<u> </u>				+ 1 - 1	Bottom of boring 20 feet below land surface.	



1377 Motor Parkway Islandia, NY Telephone: 631 -232-2600 Fax: 631-232-9898

**SOIL BORING LOG** of 1 Page WELL NO. NORTHING EASTING DN-2 LOCATION 124-136 2nd Avenue PROJECT NO./NAME 92401Y02 / FCRC 2nd Avenue MGP Site APPROVED BY LOGGED 8Y S. Glash D.Moss Brooklyn, New York GEOGRAPHIC AREA DRILLING CONTRACTOR/DRILLER Aquifer Drilling & Testing, Inc. / Kari Carli
ORILL BIT DIAMETER/TYPE | BOREHOLE DIAMETER SAMPLING METHOD START-FINISH DATE DRILLING EQUIPMENT/METHOD 2-in. / Drive Sampler LAND SURFACE ELEVATION 2-inches DEPTH TO WATER / Geoprobe BACKFILL 2" Macro-Core 1/23/02-1/23/02 (FT.) (Feet BLS) Cuttings/Bentonite Pellets

xh, et	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
-		Brown to black stained fine to coarse SAND, trace Gravel, trace Brick; dry			
	mm	(fil)			
	14444			i.,	
	mm			Ϊ.	
	17777			23.4	
	HHH			2.0.4	and the second second
	HH	Grey fine SAND, trace Sift; dry (fill)			
		Grey inte SANO, trace Silt, dry (iiii)			
	HHH				
	14444	Tan to black stained fine SAND, trace Ash; moist (fill)			
	mm			•	
<del>-</del>	177771			348	-
•	mm	Black stained fine SAND; wet (fill)			
	HHH				
	HHH	Black steined St. T. name fine Sand, trans Convolunt (611)			**
	mm	Black stained SILT, some fine Sand, trace Gravel; wet (fill)		291	
;	HIH		· ·		Free product.
•	1	Black stained fine SAND, trace Silt, trace Gravel; wet (fill)	-		
	mm		-	452	
	HHH	Dark green to tan fine Silt and fine Sand, trace Clay, trace Gravel; wet (fill)		, · ·	Strong odor and free produc
	14441			88.2	
<del>_</del>	mm		•		Free product.
	HHH			•	1700 process.
				37.8	1
	HHH			21.2	·
	1	Green to black stained fine SAND, some Silt, trace Gravel; wet (fill)	100		
		num nee	4	'	
	HHH			78.8	Slight odor and free product
					• .
	-mm	Green to tan fine SAND, little Silt; wet (fill)			
		3.55(1.2 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.1 1.3.			
<del>.</del>	1				
	mm			27.2	
	HHH				
	HHH	Black stained fine SAND, some Silt; wet (fill)	4		
				237	
	HHH				Slight odor.
•	FFFF			522	
	m	Green to black stained Sand, and Silt; wet			
	mm	Green to allow desired delice and and their		05.0	•
	HHH	DI 1 -1-1-1-1 (1-2 OAND 11-1-2 O'')		25.8	
	FAH	Black stained fine SAND, trace Silt; wet			
_	mm			179	Trace free product.
-			-		Bottom of boring 20 feet



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Page	1	of	1			SOIL	BORING LO	)G				
WELL						NORTHING	EASTING					
PROJ	ECT NO	S-2 )./NAM	Ē				LOCATION		····			<del></del>
9240	1Y02	/ FCF	C:	2nd	A۱	venue MGP Site	124-136 2nd Ave	enue				
		3Y					Dun alder Marc	Varida		:	,	
S. G	ING CO	NTRA	СТО	R/DI	RILL	D.Moss ER	Brooklyn, New ' GEOGRAPHIC AREA	TORK				
Aqui	fer Dr	illing	&	Tes	tin	g, Inc. / Kari Carli BOREHOLE DIAMETER			· ·			
	BIT DIA / Driv					BOREHOLE DIAMETER 2-inches	DRILLING EQUIPME	NT/METHOD	SAMPLING M 2" Macro-		- START-FINISH DATE 1/22/02-1/22/02	
LAND	SURFA	CE EL	EVA	TION	1	DEPTH TO WATER	BACKFILL		Z Wacios	COLE	1/22/02-1/22/02	
(FT.	}					(Feet BLS)	Cuttings/Bentor	nite Pellets				· 
			٠.			and the second second		-	•			
	. —								8low	PIO		
Depth, feet				Graph Log		Visual	Description		Counts	· Values	REMARKS	
			77	77	1	Brown to gray medium to coarse S	AND trace Gravel trac	a Ash: maist (fill)	per 6*	(ppm)		
			H	77	7	Blown to gray mediam to coarse c	AND, Hace Graves, Hac	e Asii, iitoist (iiii)				
		•	D	力	$\stackrel{\star}{\tau}$							-
			B	7	+	·	4 4					
}			R	T	T		4			12.7		-
			Ħ	#	7	1	=					
1			H	出	7	}			ì		-	-
]	*		H	+}	7			-		i		
[ ]			H	4	4	Brown to black stained fine SAND, Silt; moist (fill)	some black fine to med	lium Sand, little			Strong odor	-
5_			D	77	T	Sitt, moist (iii)						5
			D	力	7	j'				12.7		
			1	-}-}	4			•				
				$\circlearrowleft$	7	Brown SILT, little Sand, trace Grav	er; wet (fill)					
			B	$\mathcal{H}$	7					38.7	Trace free product.	_
Ì			H	77	7	]				38.7		
,-				77	1	Brown to dark green SILT, little fin	e Sand: wet (fill)					-
	,		H	$\mathcal{H}$	7	, , , , , , , , , , , , , , , , , , , ,						•
1			P	T	I			•				-
10			D	$^{\circlearrowleft}$	#							1
		-	B	力	士					6.1	Sheen.	
		٠,	1	$\mathcal{H}$	+				•		- · ·	
			R	77	Ţ						•	
:			M	11	7	6   5 5   5 6	AND EST ON 1 0.					-
			H	#	#	Dark brown to black stained fine S	AND, little Silt, trace Gr	aver; wet (mir)		i		
			B	出	士			<del>-</del>			*	-
			1	+1	+							
• • •			H	7	7			•		31.7		-
15			H	口	士			<i>P</i>				1
19			H	73	t		:					
	•		H	$\mathcal{H}$	7							٠
,			1	4	4	Dark brown fine SAND, little Silt; w	et (fill)					•
	-		H	#	#							
			H	力	土							
}			1	4	₹.		4				T	-
			H	T	$\mathcal{I}$						Trace free product.	
			H	力	土							
			H	升	士				* .			-
20	* 1		Γ٦	LL	Υ					<b>.</b> .	Bottom of boring 20 feet	.29
											below land surface.	•
l' .			- 1		100		Agricultural Company	•				



WELL	10.		NORTHING	EASTING			
G	H-21 (S	B-8)			•		·
	CT NO./N			LOCATION 124-136 2nd Avenue			
92401	Y02 / F	CRC 2nd A	venue MGP Site	124-136 2110 Avenue			
	VED 8Y		LOGGED BY D.Moss	Bracklen New York			
S. Gla	IG CONTI	RACTOR/DRIL		Brooklyn, New York GEOGRAPHIC AREA		<del></del>	<del></del>
			c / L. Davis	GEOGRAFINO AREA	2	•	
DRILL E	BIT DIAME	TER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING N	VETHOD	START-FINISH DATE
2-in. /	Drive S	ampler	2-inches	/ Geoprobe	2" Macro-	-Core	1/4/02-1/4/02
LAND S	URFACE	ELEVATION	DEPTH TO WATER	BACKFILL			
(FT.)	····		(Feet BLS)	Cuttings/Bentonite Pellets			
				And the second of the second	•		
		O an also a			Blow ·	PID	
Depth, feet		Graphic Log	Visua	al Description	Counts per 6"	Values (ppm)	REMARKS
			Brown medium to coarse SAN	D, trace Silt, trace Gravel, trace Brick; dry (fi	ill)	0.4	
		HHH	-			.,,	
		m	7				
		HH	-				
		FFFF				Ā	
		m					
		HH	-			ı	
		ppp	]	the second second			
		HH	4				
		<b>*</b>	1	•			
		m	$\mathfrak{I}$				
• •			Black stained fine stained to co	parse Sand and Sift, trace Gravel, trace		40.0	
		HH	Roots; moist (fill)	The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s		13.3	
5		1444	4				
		mm		•		32.2	
		HH	1			. 32.2	
		HHH	1			<b>.</b>	• .
		pp	<b>1</b>		, .	20.1	Strong odor.
		HH	_				
	. 5	TH				4	
		MM	7			59.9	
		444	4		7		•
		HH	7	od Dilly Assess Comment has a Dilly and Comm			
		FFFF	Brown line to medium Sand ar	d Silt, trace Gravel, trace Brick; wet (fill)		19.4	
		ppp	7			•	
'		1444	┪ .			<b>.</b> .	
7		mm	7			38.3	
10		HH	4				4 · *
<del></del>			Black stained fine to medium S	and and Silt, trace Gravel, trace Coal		40.0	Free product.
		HH	Fragments, trace Brick; wet (fil	i) — — — — — — — — — — — — — — — — — — —		10.2	i de processo.
		F444	<u> </u>				* •
		pp				55.8	
		f+++	-{				
			7				
		1444		and and Silt, trace Gravet, trace Coat, trace		26.5	
		FFFF	Brick; wet (fill)			•	
		M	1			•	
		P+++	1			62.5	
		m					
'		HH	-				
		HHH	1			29.9	
16		mm					
15_		HH	-		-2	!	2
			_1	the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s		49.4	
		17777					
	* .	<u> </u>	PEAT				



1377 Motor Parkway Islandia, NY Telephone: 631 -232-2600 Fax: 631-232-9898

	Page	1 of	1	SOIL	BORING LOG				
	WEL	L NO.	· · · · ·	NORTHING	EASTING				····
	PRO	SB7-N2 JECT NO./NAN	1E	<u> </u>	LOCATION 124-136 2nd Avenue			<del></del>	
	924	01Y02 / FC	RC 2nd A	venue MGP Site LOGGED BY	124-136 2nd Avenue				
	S. G	ROVED BY Blash		D.Moss	Brooklyn, New York				
	ORIL	LING CONTRA	CTOR/DRIL	LER	Brooklyn, New York GEOGRAPHIC AREA	<del></del>			
	Rot	IX Associat L BIT DIAMET	es Inc / P.	Barczak Borehole Diameter	DRILLING EQUIPMENT/METHOD	SAMPLING M	ETHOD	START-FINISH DA	ATE
	2-in	i. / Drive Sa D SURFACE E	mpler	2-inches	/ Geoprobe	2" Macro-		1/9/02-1/9/02	· · · · · · · · · · · · · · · · · · ·
	LANG (FT		_EVATION	DEPTH TO WATER (Feet BLS)	BACKFILL Cuttings/Bentonite Pellets		£ .		
	<del>- ''-'</del>	.1		11000000	Tourne 1 chets			<del></del>	
	}	-	<del></del>		· · · · · · · · · · · · · · · · · · ·	<del></del>	<u> </u>	<del></del>	<del></del>
	Depth feet		Graphic Log	Visual	Description	Blow Counts per 6"	PID Values (ppm)	REMARKS	**
-			HH	Brown fine to coarse SANO, trace	Gravel, trace Brick; dry (fill)			·	
		*.	口口				1.9	. *	v.
			四世	1					
			田田						
	;		FFF	1					
			HH						
	.1.		HH						1.
			故故	1					
			脚						-
	1		田出						i wan sa
			HH						
			MH	}					
	2		HH						2
			H						· .
			H						
			四世						
			PH						
		•	FFF	}					1.
	3		HH						3
			HH	Black stained fine SAND, some S	ilt; miost (fill)				
			AAA					<i>Y</i>	
			加加						
1.0	1		口口	1					
			四						
			出出	1					
	} . <del>4</del>		HH		D, some Silt, little Gravel, trace Wood;			Slight odor.	4.
			田出	moist (fill)			19.5		
22/02		· 2	田井	}					
4	ţ		HH			¥ ,		Slight odor.	
XGD			PH					. <del>-</del>	
ROUXGD			HH						
95	5		par	ĭ	· · · · · · · · · · · · · · · · · · ·		l	Refusal at 5 feet below	_ <u>5</u> v land
Ĭ-1.			1					surface.	
ENDPOI-1									
WEL									
BORING/WELL		· ·							
8 B	<u> </u>	· · · · · · · · · · · · · · · · · · ·						- 1 ×	<u> </u>



ELL NO.	1	INORTHING	L BORING LOG		<del></del>	
SB7-S2	2					
ROJECT NO./NA	ME		LOCATION			
2401Y02 / FC	RC 2nd Av	enue MGP Site	124-136 2nd Avenue			
PROVED BY		LOGGED BY				· .
. Glash		D.Moss	Brooklyn, New York GEOGRAPHIC AREA	<u> </u>		
RILLING CONTR			GEOGRAPHIC AREA			
oux Associa RILL BIT DIAMET	tes inc / P.	Barczak BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	CAMOLON	G METHOD	STADT CIMIOU OATE
in I Drive S	ampler					START-FINISH DATE
in, / Drive Sand Surface E	LEVATION	2-inches DEPTH TO WATER	/ Geoprobe BACKFILL	2" Macı	o-core	1/9/02-1/9/02
FT.)		(Feet BLS)	Cuttings/Bentonite Pellets	:		
	<u>.</u>	1. COLDEO	1 partitional and 1	<u> </u>	• •	
	·			-		
xh,	Graphic	Vien	al Description	Blow Counts	PID Values	REMARKS
el .	Log	¥15u	u1 5 0 3 0 11 p (1 0 ll	per 6"	(ppm)	· · · · · · · · · · · · · · · · · · ·
<del></del>		Brown fine to coarse SAND, to	ace Gravel, trace Brick; dry (fil)			
	HH		**************************************	. }		
	rttt			*.,	. 7	
	poppe				. 📕	
•	HHI					,
	P++++					
	TITT			1	1	
	· HHH					
	Lilli	Black stained fine SAND, som	ie Silt; moist (filt)			1
	MATT	, , , , , , , , , , , , , , , , , , , ,		1		
	K++++			. }	9.4	
	cctt	Black stained fine to medium	SAND, trace Silt, trace Gravel, trace Brick;	dry		
•	FFFF	(fill)				
	ht+++			- 1		
-	TTT				140	Strong ador
	TITIE .				. 140	
	P++++					
		Brown fine Sand and Silt, trac	e Gravel; wet (fill)	4.1 T		
	HHI			·   ::		
	P+++			[ .		
	print				56.8	ļ.
	HH				0.00	
	f++++					
	LILL	Gravel and Brick, some gray S	Silt, some Sand; wet (fill)			
4	HHI					
100	h4444					
	prote					
	HHI			1.		
	F+++					
- '.	prote					
	DDD					
***	ffff					
	part					
	mm			11:1		
	fff			The second		
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Brown to green Peat and Clay	; wet		•	
	1 34 34				A B	
	1					
	10 10 1			· ·		
Salar Salar	F 51 51					A CONTRACTOR
	45 47 4			1		·
-	1 11 11				. 🔝 .	
_	22 22 2					
-	1 24 24			}	•	
				.1		
	40 40 4					
						Battom of baring 16 feet
						below land surface.
				•		



1377 Motor Parkway Islandia, NY Telephone: 631 -232-2600 Fax: 631-232-9898

Page 1 of 1

SOIL BORING LOG

WELL NO.	NORTHING	EASTING		-,,-	
GH-1A PROJECT NO./NAME		LOCATION			
PROJECT NO./NAME 92401Y02 / FCRC 2nd Av	ranua MGP Sita	124-136 2nd Avenue			
APPROVED BY	LOGGED BY	-			•
S. Glash	R. Kovacs	Brooklyn, New York	-		
DRILLING CONTRACTOR/DRILL		GEOGRAPHIC AREA			
		Gas Holder 1			
Aquifer Drilling & Testing DRILL BIT DIAMETER/TYPE [	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING M	ETHOD	START-FINISH DATE
	4-inches	CME-45 / Drive and Wash	2" Split Sp		3/15/02-3/20/02
LAND SURFACE ELEVATION	DEPTH TO WATER	BACKFILL			
(FT.)	(Feet BLS)	Grout			· · · · · · · · · · · · · · · · · · ·
					9
			Blow	PID	
Pepih, Graphic feet Log	Visual	Description	Counts per 6	Values (ppm)	REMARKS
HH	Brown to dark brown fine to coars	e SAND, little Brick; dry (fill)		13.1	
		e de	] ]]	<b>/</b> ].	
			1/4		
F+++					
f++++	Brown to dark brown fine to media	um SAND, some Brick; dry (fill)	, N	27.7	
mm					
l+++			4		
P++++	Brown to dark brown fine to media	um Sand; dry (fill)		9.8 C	Odar.
5	:				
			1	1	
Litti			·		*
f++++		medium Sand, some Brick, little Ash; dry	· [	11.7	
pttt	(fill)			!	
					and the second
}			1 4		4
f+++		edium SAND, some Brick, trace Gravel;	\ \	12.1	
	dry (fill)				
			1 1/	\ . \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
10 fift			1	ł. l	
HH	Brown medium SAND, some Brick	k; dry (fill)	N	7.3	
ptt			- J		
Fift					
httt.	Brown medium SAND, trace Cobt	otes; dry (fill)		9.2	
			`		
HH					
- HH		D : 1	4		
K++++	Brown fine to medium SAND, trac	e Brick; dry (fill)	I N	9.1	
15			1		
HH			·   *   /		
Fff.					
K+++	Brown fine to medium SAND, son	ne Gravel, some Brick; dry (fill)	· N	10.3	A Commence of
0 0 0 0	CONCRETE		<b>⊣</b>   <b>/</b>		
المرم مرمد			_  '4		and the second
	Grey fine Sand and Silt, trace Gra	ivel, trace Concrete, wet	· · · N		
ppp					
HHI					$G_{2} = \{ f_{1}, \dots, f_{n} \} $
<u>20</u>			1	Y   .	
f++++	Black stained fine SAND, trace Gi	ravei, trace Concrete; wet		179	
			- I		
HHH			1 14	(	ree product,
}			1	<b>V</b>	
1777	Black stained fine SAND, some C	oncrete; wet		<b>7</b>	4.
				'  . <del> </del>	
HHH					
			<b>」</b>	N (	
	A STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STA		Service Services		ottom of holder at 24 feet
				٥	elow land surface.



	Page 1	of 1	SO	IL BORING LOG				
	WELL NO.		NORTHING	EASTING	·			
	GH- PROJECT NO./	18 NAME	<u> </u>	LOCATION			<del>-</del> -	
•	92401Y02/	FCRC 2nd Av	renue MGP Site	LOCATION 124-136 2nd Avenue				
	APPROVED BY	' -	C. Battista	Brooklyn Now York				
	DRILLING CON	TRACTOR/DRILL	ER	Brooklyn, New York GEOGRAPHIC AREA				
	Aquifer Dril	ling & Testin	g, Inc. / S. Miller BOREHOLE DIAMETER	Gas Holder 1	Loanomia	eruo.	LOTABLE CINIOLIDATE	
	4.25-in. / Au		8-inches	ORILLING EQUIPMENT/METHOD Mobile Drill B-61 / HSA	SAMPLING MI 2" Split Sp		3/18/02-3/18/02	
	LAND SURFAC	E ELEVATION	DEPTH TO WATER	BACKFILL	12 9911 99		1.0. 10.02 0, 10,02	
	(FT.)		(Feet BLS)	Grout				
					Blow.	PID		
	Depth feet	Graphic Log	Visu	al Description	Counts per 6*	Values (ppm)	REMARKS	
			Brown fine to coarse SAND.	some Gravel, little Brick, little Concrete; dry (fil	•	(0511)		
		PAR			"	\		
		m			'			
		·bbb						
		HH	Brown fine to coarse SAND,	some Gravel, little Brick, little Concrete; dry (fil	)			÷
		m					$x_{i} = x_{i} - x_{i} - x_{i} = x_{i} - x_{i}$	1.
	f	pp			1 14			
			}					
	• •	F-F-F-F-	Brown fine to coarse SAND.	some Gravel, trace Brick, trace Concrete; dry		6.5		
		HH	(fill)			0.5		
	5	m					*. *	_5
		世世			-			
•								
			Brown fine to coarse SAND, Concrete, trace Gravel; dry (I	ittle Brick, trace Coal Fragments, trace		2.9		
		AH	00,10,10,10,10,10,10,10,10,10,10,10,10,1	••••				
		m						- [
-		<b>西</b>						
	} • •			ittle Brick, little Gavel, trace Coal Fragments;		5,2		
		HH.	dry (fill)			"		
	• • • • • • • • • •	HH						
		- FATT				1000		
	10	1555	G	The Dank little Council have Council house				. 10
		<b>声</b>	Coal Fragments; dry (fill)	ittle Brick, little Gravel, trace Concrete, trace		8.7		
		肝肝	}					• •
		HH						
		HH						
		1777		some Gravel, little Brick, trace Coal Fragments		12.3		
		m	dry (fill)		- I	V 9		
4/17/02								-
		HH						-
8		1377T	Orough fine to coarse SAMO	some Gravel, little Brick, trace Coal Fragments				
ĝ		m	dry (fill)	dottle Crover, mile Brick, trade Coart (agricolite				
α. α.	15_	m						<u>15</u>
2							Dallam of basins 45 fact	-
ENDPO(-1 GPJ ROUX GDT		HH					Bottom of boring 15 feet below land surface.	
. EN								
- 4	<b> </b>				entropio de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la compansi	A CONTRACTOR	in distributed by the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second o	
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ROUX ASSOCIATES, INC.
Environmental Consulting

1377 Motor Parkway Islandia, NY Telephone: 631 -232-2600 Fax: 631-232-9898

& Management SOIL BORING LOG Page 1 of 1 WELL NO. NORTHING GH-1C PROJECT NO./NAME 124-136 2nd Avenue 92401Y02 / FCRC 2nd Avenue MGP Site APPROVED BY LOGGED BY Brooklyn, New York GEOGRAPHIC AREA S. Glash D.Moss DRILLING CONTRACTOR/DRILLER Aquifer Drilling & Testing, Inc. / L. Adams Gas Holder 1 DRILL BIT DIAMETER/TYPE BOREHOLE DIAMETER DRILLING EQUIPMENT/METHOD SAMPLING METHOD START-FINISH DATE 3 7/8 inch / Tri-Cone LAND SURFACE ELEVATION CME-45 / Drive and Wash 2" Split Spoon 4-inches 3/18/02-3/18/02 DEPTH TO WATER BACKFILL (Feet BLS) Grout (FT.) PID Blow Deoth, Graphic REMARKS Visual Description Counts Values feel Loa per 6" (ppm) Brown fine to coarse SAND, trace Brick, trace Gravel, trace Concrete; moist Brown fine to coarse SAND, trace Brick, trace Gravel, trace Concrete; moist Brown fine to coarse SAND, trace Brick, trace Gravel, trace Concrete; moist 2.3 5 Brown medium to coarse SAND, trace Gravel, trace Brick, trace Silt; moist 0.0 Brown medium to coarse SAND, trace Gravel, trace Brick; moist (fill) 0.0 10 10 Brown medium to coarse SAND, trace Silt, trace Gravel, trace Brick, trace 0.0 Coal Fragments; wet (fill) Brown medium to coarse SAND, trace Silt, trace Gravel, trace Brick, trace 15.2 Coal Fragments; wet (filt) Brown to tan fine to coarse SAND, trace Gravel, trace Brick, trace Concrete; 3.7 wet (fill) 15 ROUXGDT Tan to black stained fine to coarse SAND, trace Gravel, trace Concrete, S. Odor. 43.1 trace Brick; wet (fill) ENDPOI-1 Bottom of soil boring 17.5 feet

below land surface.



BORING/WELL ENDPOI-1. GPJ ROUX GDT 4/22/02

VELL N			BORING LOG		
V [_CC 14	The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s	NORTHING	EASTING		
ROJEC	GH-3B CT NO./NAME		LOCATION		
2401	Y02 / FCRC 2nd A	venue MGP Site	124-136 2nd Avenue		•
	VED BY	LOGGED BY			
S. Gla	I <b>Sh</b> NG CONTRACTOR/DRII	D. Moss	Brooklyn, New York GEOGRAPHIC AREA		
			Gas Holder 3		
		ng, Inc. / L. Adams   BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	
3 7/8 i	nch / Tri-Cone URFACE ELEVATION	4-inches DEPTH TO WATER	CME-75 / Drive and Wash	2" Split Spoon	3/15/02-3/19/02
AND SI (FT.)	ORFACE ELEVATION	(Feet BLS)	8ACKFILL Grout		
\ <u></u> .	· · · · · · · · · · · · · · · · · · ·	11.001.201		<del></del>	<u></u>
epin,	Graphic			Blow PID	
eel	Log	Visual	Description	Counts Valu per 6" (pom	
		Brown coarse to fine SAND, trace	Silt, trace Gravel, trace Brick; dry to wet		<u>,                                     </u>
	HH	(fill)			
		Į			Lithology from 0 to 5 feet
1.	Eth				interpreted from previous Site investigation.
	HHH.		A Carlo		
-				, (	
2	HH	$\dashv$			
• -	· mm				
	THE THE	$\mathfrak{A}$	•		
3_					
	HH				
4.	HH				
		$\mathbb{Q}$			
• •	ptt				
5	HH				
<del></del> -	THE THE	Black stained fine to coarse SANI	D, some Gravel, little Silt; wet (fill)		Odor and free product.
	th			4	
_	HH			4	
8	0.0	Concrete and 1.5 inches of steel		—-	
	0.0.0.0	71		50/1	
	0000				
7	10.0.0.0				
٠		Wood and Concrete fragments, w	vet	80	Odor and trace free product.
	0.0.0				No.
8	0.0.0	?		38	
٠.	00				
	0.0.0.0			25	
	0000	<b>÷</b>		21	
9	0 1 0 1	한 Peat	· · · · · · · · · · · · · · · · · · ·		Free product in groundwater
	7 47 47 				around sample in split spoon;
		- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1			no product observed within the sample.
0	77 VV				are cumple.
	7 77 77				
-	11. 11.	4			
	· 5 27 21	4			
1.	L	<u> </u>			   Boltom of boring 11 feet
					below land surface.
	5				



LOG OF BORING LB7

		Euditlesuring and challournourm netalogs		٠.	:				SHEET1_ OF2	
	PHONE	Loews @ Gowanus	PROJECT NO. 1531601							
	LOCATI	ON	ELEVATION AND DATUM approx. el 11 [BBHDD]							
	אנטואס	Brooklyn, NY		DATE STA	ATED		X. 81 1	TE FINI	SHED COMPLETION DEPTH	
	SIZE AN	Davey Kent DK50RA Track Rig		.NUMBE	/19/		<u> </u>	11	/24/98 77 ft.	
		HW and NO Rock Cores and Tri-Cone Roller	Bit	SAMP	LES			8	1	
	<u> </u>	4 1/2" OD 4" ID 7		RZTAW .ll)	)	_   '	V V		CCMPL. 24 HR. 4.5	
•	SAMPLE	R Standard Solit Spoon (SS) or Shelby Tube (S	ו תו	ORILLING			: luri/Mi	ka Ch	ılzmar	
	SAME	PLER HAMMER WEIGHT(lbs) 0ROP(in) 30		NSPECTIN	IG EN	GINE	a L. Gle			
		140	<del></del> /		1	SAME	LE DAT	Ā	GGWAGKS	
	ELEV.	SAMPLE DESCRIPTION	LOG	OL DEPTH SCALE		TYPE RECOV.	PENETA.	N-VALUE BLOWS		
brd	x, el 11	5 CONCRETE w wire mesh	/ <del>*****</del> ****	<b>%</b>			-	] '	"New York City BC Classification numbers in parenthesis	
		Inferred miscellaneous FILL (11-65)*		& .	15	55 -	21 47	101	Started coring w/ weter Lost some water 0 = 1,5'	
		Gray/black fc. SAND, some silt (11-65)		計	"		\$4 20	-	PID = 400 ppm Petroleum like material odgr	
		Black SILT/PETROLEUM LIKE MATERIAL, some		<u>X</u>	}			-	Or/off rig chatter 0 = 1.5 - 4.5 Petroleum like material in wash 0 = 4.7.5	
		c. sand, and white coment fragments, trace fm.	,‱	XI	8	SS	4 Z 10/1	3	Spoon refusel 50/1° w/ bounding O = 6°	
	0.0	h sand and clay (11-65)		젊		$\neg \vdash$	1821		PID = 480 ppm A 16" x 4" x 1/4" giaca of vertical staet on a	
	0.0	Interred miscellaneous FILL (11-65)	100	<b>}</b> }	 			ļ · _	1/2" thick base plate 0 = 7" w/ 2" wide horizontal places of steel, which were car.	
	0.0	L CONCRETE		á	19	+		<del> </del> -	at the loo inside and bottom outside $O = 6$	
ĺ		Petroleum like material treated WOOD (11-65)	K 77.	-		SS	WOR	lucal	Lost some water 0 = 8' - 9:25' Added mud 0 = 9:25'	
-		Interred Brown PEAT, some silt (11-65)	74 74	コ		47	AON AON		Drilled through WOOD and lost circulation D = 9.75	
.			1 74	과 -					WOR: Weight of rods WOR went from 0 = 10' + 15'	
			77 77	!						
1		Interred Brown PEAT, some silt (11-65)	1	15 -	54	Si c	HOW	lwou[	WOH: Weight of hammer Sample S4 S5 tip material	
.			* * * * * * * * * * * * * * * * * * *		S	S C	MOH MOH	1 1	PID = 590 ppm WOH went from 0 = 15' + 17.5'	
		Brown PEAT, same silt (11-65)	不不	1	-		PUSH	augu		
ĺ	1	Brown/gray f. SAND, some silt (8-65)	537.5	-	F	22 22	FUSH PUSH	PUSH	Visible petroleum like material wi odor Pushing became more difficult 0 = 19,25	
١		Brown I. SAND, some silt (8-65)		20 -	25	SS	1 3	6	Addad mud O - 20' PIO - 920 ppm	
							4			
ŀ	1			<u>}</u> -						
				-						
		Brown I. SAND, trace silt and clay (8-65)	3	25 -		<u>,,   -</u>	. 34 . 42			
					88	S =	22	75	PID = 760 ppm Trace wood fibers in wash 0 = 27 - 30.5	
				-		-			Tight fil for by D = 27 - 30.5	
	1			}		.				
				— 30 —			18	-	1° of WOOD FIBERS, trace I,-m, sand w/	
	*.	Brown (,-m. SAND, trace silt (7-65)			S8 S7	55	. 19	30	PIO = 170 ppm in top oi SS PIO = 750 ppm	
	}				S		- 2		Brown SILT, trace clay and I, sand in SS IID 0 = 32,5	
				} - 4					THE WHITE	
		Brown SILT, trace clay and f. sand (10-65)		35	- 53	-	3		PP = 0.1 · 0.3 Isl	
	}	Gray CLAY, some silt (9-65)	7-7	† †	Sio	S =	2 3	5	위D = 640 ppm 위P = 0.6 • 0.9 ts/	
			5-5	[ ]		+	1-1-		PID = 320 ppm	
ļ.,			TF SF	1 ]						
	· · ·	Gray/brown CLAY, some sill, trace i. sand (9-65)	JF_J	40	_		ном	<del> </del>	•	
		Sidjidini Garri adila dili ilada ilada 12 day	J	† {	5	3 =	2 2	4	PP = 0.4 + 0.65 (sf PIO > 2000 ppm	
{			SrSr	† †			+ -	$\vdash$		

Langan
Engineering and Environmental Services

LOG OF BORING LB7 SHEET 2 OF 2

TROJEC	Loews @ Gowanus	Pi	ROJECT (		53	160	1			
LOCATIO	N .	EI	ELEVATION AND DATUM  approx. el 11 [88HDD]							
	Brooklyn, NY	<del></del>	Ţ	S.		SAMPLE DATA				
ELEV. (ft)	SAMPLE DESCRIPTION	LOG	GEPTH SCALE	NUMBER	IJ.	RECOY.	PENETA RESIST RUKA	N.VALUE BLOWS PCD CT	REMARKS (DRILLING FLUID, OFFTH OF CASING, PLUID LOSS, DAILLING RESISTANCE, ETC.)	
			45 -							
	Brown CLAY, some silt, trace f. sand (9-65)		-	\$12	SS	13		8	PP = 0.6 - 0.85 tst PIO = 170 ppm	
	Brown I. SAND, trace silt (8-65)		50 -	S13	SS	14	10	56	PID = 550 ppm	
	BIOWN (, SAND, dace sin 10-00)			S.	(c)	1	23	26	Fig chaner 0 = 52.25' - 53'	
7.a	Brown fc. SAND, trace slit and fm. gravel (6-65)			\$14	SS	10.5	20 24	44	PIO = 710 ppm	
	and the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second o		- 55 <b>-</b>							
									Added mud () = 57* - 58* Rig chatter () = 57.5 - 58*	
	Red brown fc. SAND, trace silt and fm. gravel		- 60 -	Sis	SS.	8	10 38 31	67	PID = 40 ppm	
	(6-65)			co.	7,		22			
			- 65 -				7.6		OrVall no chanser D = 80' - 65'	
	Red brown (c. SAND, some Im. gravel, trace silt (6-65)			\$16	SS	8	28 42 27 13	64	PID = 640 ppm	
					: 1				On/oil rig chatter D = 85° - 70°	
	Red brown tc. SAND, some tm. gravet, trace silt (6-65)		70 -	217	55	7.5	45 25 22 25	48	P)O = 20 ppm	
									Or/oil rig chatter 0 = 70' - 75'	
	Red brown fc. SAND, some fm. gravel, trace silt (6-65)		75 -	S18	SS	- Bor	38 21 22 22	50	PID - \$40 ppm	
}		(2788/2)	-				25		Barehale grouted upon completion	
	Boring terminated D = 77'		- 00	** . *		3			Andreas (1994) Partie de la Transfer	
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# ATTACHMENT 2

Data Usability Summary Report

# Data Validation Services

120 Cobble Creek Road P. O. Box 208

North Creek, N. Y. 12853

Phone 518-251-4429

Facsimile 518-251-4428

April 15, 2002

Scott Glash Roux Associates 1377 Motor Parkway Islandia, NY 11749

RE: Data Usability Summary Report for the Former 2nd Avenue site, Brooklyn, NY data packages STL-CT SDG Nos.200316, 200334, 200340, 200348, 200367, 200382, 200435, 200442, 200447, 200514, 200527, 200538, 200571, 200580, 200617, 200625, 200703, and 200742

Dear Mr. Glash:

Review has been completed for the data packages generated by Severn Trent Laboratories which pertain to samples collected 1/02/02 thrugh 3/1902 at the Brooklyn MGP site. This review was conducted on eighty three of the soil samples which were collected and analyzed for semivolatile PAH analytes by method USEPA SW846 8270C.

The data packages submitted contained full deliverables for validation, but this usability report is generated from review of the summary form information, with limited review of sample raw data, and some review of associated QC raw data. Full validation has not been performed. However, the reported summary forms have been reviewed for application of validation qualifiers, with guidance from the NYSDEC 1997 Guidance for the Development of DUSRs, USEPA Region 2 validation SOPs, and the USEPA National Functional Guidelines for Data Review, as affects the usability of the sample data. The following items were reviewed:

- \* Laboratory Narrative Discussion
- \* Custody Documentation
- \* Holding Times
- \* Surrogate and Internal Standard Recoveries
- \* Duplicate Correlations
- \* Preparation/Calibration Blanks
- \* Control Spike/Laboratory Control Samples
- \* Calibration Standards
- \* Instrument IDLs

Those items listed above which show deficiency are discussed within the text of this narrative All other items were determined to be acceptable for this level of review.

In summary, sample results are usable as reported, or with minor qualification as estimated due to typical matrix or processing effects.

The following text discusses data quality issues. Copies of the laboratory case narratives and sample identification summaries are attached to this text, and should be reviewed in conjunction with this report. Those samples undergoing this DUSR review are those with depths at the following locations: SB-2, SB-3, SB-8, SB-9, SB-14, AS-2, ASW-2, SB-7-N2, SB-7-S2, BNE-E-2, BNW-2, CB-1, AN-3, ANE-1, DS-2, CNE-3, DN-2, CNW-3, SB15 SW, CN-6, AN-4, CN-4, CN-8, AN-6, CN-5, CN-7, CN-10N, CN-12, AN-9, AN-9N, AN11, and AN-12.

### Data Completeness

The required laboratory NYSDEC Sample Analytical Requirement Summary Forms were not included in the laboratory deliverables.

## **Accuracy and Precision**

The matrix has not been evaluated for accuracy and precision due to the fact that no sample matrix spikes or field duplicates were performed.

Laboratory Control Sample (LCS) spiked blanks showed acceptable recoveries for all analytes, or elevated recoveries not affecting sample results, with the exception of one LCS (discussed below).

#### PAH Analyses by 8270C

Holding times, and surrogate and internal standard responses were within required ranges. Blanks showed no contamination.

The LCS processed with the samples in SDG 200538 showed very slightly elevated recoveries for 2-methylnaphthalene, acenaphthene, and fluorene (111% to 119%). The reported detected values of these three analytes in samples CN-8 6-8, CN-8 8-10, and CN-8 12-14 are therefore to be qualified estimated ("J"). The usability of those data is not significantly affected.

The LCS processed with the samples in SDG 200348 showed elevated recoveries (143% to 165%) for three of the analytes. The associated sample results were either nondetection or already qualified estimated, and no addition qualification is required.

Calibration standards showed acceptable responses, with the exception of outying linearity (38%RSD) and elevated continuing calibration responses (31%D) for three analytes either not detected or already qualified estimated due to value below CRDL. No additional qualification is necessary.

Samples exhibiting analyte concentrations in the parts per thousand range may have a low bias to the reported concentrations due to the fact that the solvency of the method may be exceeded.

Please do not hesitate to contact me if questions or comments arise during your review of this report.

Very truly yours,

Judy Harry

### SAMPLE INFORMATION Date: 01/21/2002 Date: 01/21/2002

Job Number.: 200316

Customer...: ROUX ASSOCIATES Attn.....: Scott Glash

			**************************************			
aboratory	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
100316-1	SB-1,6-7	Soil	01/02/2002	09:35	01/03/2002	09:20
200316-2	SB-1,8-10	Soil	01/02/2002	09:45	01/03/2002	09:20
(00316-3	SB-1,12-16	Soil	01/02/2002	10:02	01/03/2002	09:20
200316-4	SB-2,7-8	Soil	01/02/2002	11:26	01/03/2002	09:20
00316-5	SB-2,9-10	Soil	01/02/2002	11:33	01/03/2002	09:20
200316-6	SB-2,12-16	Soil	01/02/2002	12:10	01/03/2002	09:20
00316-7	SB-3,6-8	Soil	01/02/2002	14:07	01/03/2002	09:20
:00316-8	SB-3,8-12	Soil	01/02/2002	14:14	01/03/2002	09:20
200316-9	SB-3,12-16	Soil	01/02/2002	15:06	01/03/2002	09:20
. 40031043	33-3,12-40	3011	01/02/2002	13:00	01/03/1001	02.20
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### LE. INFORMATION Date: 01/16/2002 SAMPLE.

Job Number.: 200334

Customer...: ROUX ASSOCIATES Attn.....: Scott Glash

Project Number.....: 20000262 Customer Project ID...: MGP-92401Y02

Project Description...: MGP-92401Y02

Laboratory Sample ID		%Customer Sampla ID	Sampla Matrix	Date Sampled	Time Sampled	Date Received	Time Received
200334-1	SB7 7-8		Soil	01/04/2002	07:49	01/04/2002	19:30
200334-2	SB7 9-10		Soil	01/04/2002	07:55	01/04/2002	19:30
200334-3	SB7 12-13		Soil	01/04/2002	08:00	01/04/2002	19:30
200334-4	SB8 7-8		soil	01/04/2002	09:08	01/04/2002	19:30
200334-5	SB8 10-11		soil	01/04/2002	09:17	01/04/2002	19:30
200334-6	SB8 13-14		soil	01/04/2002	09:30	01/04/2002	19:30
200334-7	SB9 5-6		Soll	01/04/2002	10:11	01/04/2002	19:30
200334-8	SB10 7-8		Soil	.01/04/2002	11:20	01/04/2002	19:30
200334-9	SB10 9-10		Soil	01/04/2002	11:40	01/04/2002	19:30
200334-10	SB10 14-15		Soil	01/04/2002	12:40	01/04/2002	19:30
200334-11	SB11 7-8		Soil	01/04/2002	13:50	01/04/2002	19:30
200334-12	SB11 11-12		Soil	01/04/2002	14:12	01/04/2002	19:30
200334-13	SB12 6-8		Soil	01/04/2002	15:20	01/04/2002	19:30
200334-14	SB12 8-10		Soil	01/04/2002	15:50	01/04/2002	19:30
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# SAMPLE INFORMATION Date: 01/30/2002

Job Number: 200442 Customer...: ROUX ASSOCIATES Attn.....: Scott Glash

Laboratory Sample ID	Customer: Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
200442-1	DS2, 6-8	Soil	01/22/2002	08:45	01/23/2002	09:50
200442-2	DS2, 8-12	Soil	01/22/2002	09:00	01/23/2002	09:50
200442-3	DS2, 12-16	Soil	01/22/2002	10:00	01/23/2002	09:50
200442-4	CNE2A, 7-8	Soil	01/22/2002	11:15	01/23/2002	09.50
200442-5	CNE2A, 9-10	Soil	01/22/2002	11:20	01/23/2002	09:50
200442-6	CNEZA, 14-15	Soil	01/22/2002	11:30	01/23/2002	09:50
200442-7	CNE3, 7-8	Soil	01/22/2002	12:30	01/23/2002	09150
200442-8	CNE3, 8-10	Soil	01/22/2002	12:45	01/23/2002	09:50
200442-9	CNE3, 15-16	soil	01/22/2002	12:55	01/23/2002	09:50
200443-10	CNW2A, 6-8	Soil	01/22/2002	13:50	01/23/2002	09:50
200442-11	CRW2A, 9-11	Soil	01/22/2002	13:58	01/23/2002	09:50
200442-12	CNW2A, 12-14	Soil	01/22/2002	14:05	01/23/2002	03.10
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# SAMPLE INFORMATION Date: 01/31/2002

Job Number.: 200447

Customer...: ROUX ASSOCIATES Attn.....: Scott Glash

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
200447-1	CNW3 6-7	Soil	01/23/2002	08:35	01/23/2002	18:20
200447-2	CMM3 9-10	Soil	01/23/2002	08:45	01/23/2002	18:20
200447-3	CNW3 12-16	Soil	01/23/2002	08:55	-01/23/2002	18:20
200447-4	DN2 6~8	Soil	01/23/2002	09:35	01/23/2002	18:20
200447-5	DN2 8-9	Soil	01/23/2002	09:40	01/23/2002	18:20
200447-6	DN2 12-14	Scil	01/23/2002	09:50	01/23/2002	18:20
200447-7	8B-15 SW 6-7	Soi1	01/23/2002	10:50	01/23/2002	18:20
200447-8	SB-15 SW 8-12	Soil	01/23/2002	10:58	01/23/2002	18:20
200447-9	88-15 SW 15-16	Soil	01/23/2002	11:10	01/23/2002	18:20
200447-10	CN3 6-7	Soil	01/23/2002	12:20	01/23/2002	18:20
200447-11	CN3 8-12	Soil	01/23/2002	12:30	01/23/2002	18:20
200447-12	CN3 12-16	Soil	01/23/2002	12:45	01/23/2002	10120
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#### SAMPLE INFORMATION Date: 01/29/2002

Job Number.: 200367

Customer...: ROUX ASSOCIATES Attn....: Scott Glash

Project Number..... 20000262

Customer Project ID...: MGP-92401Y02 Project Description...: MGP-92401Y02

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Tima Received
200367-1	A02, 4.5-5.5	Soil	01/09/2002	08;31	01/10/2002	09:15
200367-2	A02, 11-12	Soil	01/09/2002	09:06	01/10/2002	09:15
200367-3	A02, 12-16	Soil	01/09/2002	09:23	01/10/2002	09:15
200367-4	SB7-S2, 4-6	Soil	01/09/2002	09:52	01/10/2002	09:15
200367-5	SB7-N2, 4-5	Soil.	01/09/2002	12:17	01/10/2002	09:15
			<u>-</u>			

#### SAMPLE INFORMATION Date: 01/29/2002

Job Number.: 200382

Customer...: ROUX ASSOCIATES Attn..... Scott Glash

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Data Sampled	Time Sampled	Date Received	Time Received
200382-1	BW-2, 7-8	Soi l	01/10/2002	10:14	01/12/2002	10:20
200382-2	BW-2, 8-8.5	Soil	01/10/2002	10:24	01/12/2002	10:20
200382-3	BOW-2, 6-8	Soil	01/10/2002	11:08	01/12/2002	10:20
200382-4	BOW-2, 8-12	Soil	01/10/2002	11.17	01/12/2002	10:20
200382-5	BOW-2, 12-13	Soil	01/10/2002	11:35	01/12/2002	10:20
200382-6	BOE-R-2, 6-7	Soil	01/11/2002	13:11	01/12/2002	10:20
200382-7	BOE-E-2, 8-10	Soil	01/11/2002	13:25	01/12/2002	10:20
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# SAMPLE INFORMATION Date: 02/13/2002

Job Number.: 200514

Customer...: ROUX ASSOCIATES Attn.....: Scott Glash

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
200514-1	CN-6 5-6	Soil	02/06/2002	09:26	02/07/2002	09:30
200514-2	CN-6 10-12	Soil	02/06/2002	10:15	02/07/2002	09:30
200514-3	CN-6 14-15	Soil	02/06/2002	10:54	02/07/2002	09:30
200514-4	CN-9 5-6	Soil	02/06/2002	13:18	02/07/2002	09:30
200514-5	CN-9 10-12	Soil	02/06/2002	14:05	02/07/2002	09:30
200514-6	CN-9 12-14	Soil	02/06/2002	14:20	02/07/2002	09:30
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# SAMPLE INFORMATION Date: 02/18/2002

Job Number,: 200527

Customer...: ROUX ASSOCIATES Attn.....: Scott Glash

Project Number..... 20000262

Customer Project ID....: MGP-92401Y02 Project Description...: MGP-92401Y02

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
200527-1	CN-4, 4-6	Soil	02/07/2002	09:00	02/07/2002	19:40
200527-2	CN-4, 8-10	Soil	02/07/2002	09:40	02/07/2002	19:40
200527-3	CN-4, 12-14	Soil	02/07/2002	10:25	02/07/2002	19:40
200527-4	AN-4, 4-6	Soil	02/07/2002	13:20	02/07/2002	19:40
200527-5	AN-4, 10-12	Soil	02/07/2002	14:15	02/07/2002	19:40
200527-6	AN-4, 14-16	Soil	02/07/2002	15:00	02/07/2002	19:40
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### E INFORMATION Date: 02/20/2002 SAMPLE

Job Number.: 200538

Customer...: ROUX ASSOCIATES Attn....: Scott Glash

Laboratory Sample IO	Customer Sample 10	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
200538-1	AN-5, 4-6	Soil	02/08/2002	08:40	02/08/2002	19:45
200538-2	AN-5, 13-15	Soil	02/08/2002	11:20	02/08/2002	19:45
200538-3	CN-8, 6-8	Soil	02/08/2002	14:50	02/08/2002	19:45
200538-4	CN-8, 8-10	Soil	02/08/2002	15:10	02/08/2002	19:45
200538-5	CN-8, 12-14	Soil	02/08/2002	15:48	02/08/2002	19:45
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# SAMPLE INFORMATION Date: 02/28/2002

Job Number.: 200580 Customer...: ROUX ASSOCIATES Attn....: Scott Glash

Laboratory Sample 10	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
200580-1	CN-7 / 4-6	Soil	02/20/2002	10:30	02/20/2002	17:35
200580-2	CN-7 / 8-10	Soil	02/20/2002	11:00	02/20/2002	17:35
200580-3	CN-7 / 12-14	Soil	02/20/2002	11:40	02/20/2002	17:35
200580-4	CN-5 / 6-8	Soil	02/20/2002	14:00	02/20/2002	17:35
200580-5	CN-5 / 10-12	Soil	02/20/2002	14:25	02/20/2002	17:35
200580-6	CN-5 / 14-15	Soil	02/20/2002	15:00	02/20/2002	17:35
200580-7	CN-10 / 14-14.5	Soil	02/20/2002	07:25	02/20/2002	17:35
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			]			

# SAMPLE INFORMATION Date: 03/07/2002

Job Number.: 200617 Customer...: ROUX ASSOCIATES Attn.....: Scott Glash

Laboratory Sample 1D	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
200617-1	AN-6N / 4-6	Soil	02/28/2002	09:11	02/28/2002	17:00
200617-2	AN-6N / 8-10	Soil	02/28/2002	09:40	02/28/2002	17:00
200617-3	AN-6N / 13.5-15	Soil	02/28/2002	11:40	02/28/2002	17:00
200617-4	AN-6S / 4-6	Soil	02/28/2002	08:40	02/28/2002	17:00
200617-5	AN-6S / 10-11.5	Soil	02/28/2002	10:20	02/28/2002	17:00
200617-6	AN-6S / 13-14	Soil	02/28/2002	10:55	02/28/2002	17:00
200617-7	CN-10N / 4-6	Soil	02/28/2002	13:40	02/28/2002	17:00
200617-8	CN-10N / 8-10	Soil	02/28/2002	14:20	02/28/2002	17:00
200617-9	CN-10s / 10·11.5	Soil	02/28/2002	13:55	02/28/2002	17:00
200617-10	CN-10s / 13-15	Soil	02/28/2002	14:55	02/28/2002	17:00
200617-11	CN-105 / 6-8	Soil	02/28/2002	13:15	02/28/2002	17:00

## SAMPLE INPORMATION Date: 03/07/2002

Job Number.: 200625

Customer...: ROUX ASSOCIATES

Attn.....: Scott Glash

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
200625-1	CN-11/6-8	Soil	03/01/2002	08:30	03/01/2002	17:10
200625-2	CN-11/8-10.5	Soil	03/01/2002	- 09:05	03/01/2002	17:10
200625-3	CN-11/14-16	Sail	03/01/2002	10:00	03/01/2002	17:10
200625-4	CN-12/4-6	Soil	03/01/2002	11:55	03/01/2002	17:10
200625-5	CN-12/8-10	. Soil	03/01/2002	12:40	- 03/01/2002	17:10
200625-6	CN-12/13-15	Soil	03/01/2002	13:35	03/01/2002	17:10
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#### SAMPLE INFORMATION Date: 01/29/2002

Job Number.: 200340

Customer...: ROUX ASSOCIATES Attn....: Scott Glash

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
200340-1	SB13, 6-7	Soil	01/07/2002	08:28	01/07/2002	20:20
200340-2	SB13, 10-12	Soil	01/07/2002	08:31	01/07/2002	20:20
200340-3	SB14, 7-8	Soil	01/07/2002	09:24	01/07/2002	20:20
200340-4	SB14, 8-12	Soil	01/07/2002	09:31	01/07/2002	20:20
200340-5	SB14, 13-14	Soil	01/07/2002	09:48	01/07/2002	20:20
200340-6	SB15, 6-7	Soil	01/07/2002	10:35	01/07/2002	20:20
200340-7	SB17, 5-6	Soil	01/07/2002	12:14	01/07/2002	20:20
200340-8	SB18, 5-6	Soil	01/07/2002	12:52	01/07/2002	20:20
200340-9	SB19, 6-8	Soil	01/07/2002	13:34	01/07/2002	20:20
200340-10	SB19, 11-12	Soil	01/07/2002	13:40	01/07/2002	20:20
200340-11	SB20, 7-8	Soil	01/07/2002	14:27	01/07/2002	20:20
200340-12	SB20, 8-12	Soil	01/07/2002	14:34	01/07/2002	20:20
200340-13	SB20, 14-15	Soil	01/07/2002	14:42	01/07/2002	20:20
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## SAMPLE INFORMATION Date: 01/24/2002

Job Number.: 200348

Customer...: ROUX ASSOCIATES
Attn....: Scott Glash

Laboratory Customer ample ID Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	fime Received
200348-1 AS2 6-8	Soil	01/08/2002	08:40	01/08/2002	19:25
, 200348-2 AS2 8-12	Soil	01/08/2002	08:55	01/08/2002	19:25
200348-3 ASW2 7-8	Soil	01/08/2002	09:42	01/08/2002	19:25
200348-4 ASW2-8-12	Soil	01/08/2002	10:48	01/08/2002	19:25
200348-5 AOW2 5-6	Soil	01/08/2002	12:08	01/08/2002	19:25
200348-6 ASE2 7-8	Soil	01/08/2002	15:30	01/08/2002	19:25
200348-7 ASE2 8-12	Soil	01/08/2002	15:36	01/08/2002	19:25
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## SAMPLE INFORMATION

Date: 01/30/2002

Job Number: 200435 Customer...: ROUX ASSOCIATES Attn...... Scott Glash

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
200435-1	SB5 5-7	Soil	01/21/2002	09:35	01/22/2002	09:25
200435-2	SBS 8-12	Soil	01/21/2002	10:20	01/22/2002	09:25
200435-3	SB5 12-13	Soil	01/21/2002	10:30	01/22/2002	09,25
200435-4	CB1 10.5-11.5	Soil	01/21/2002	10:45	01/22/2002	09:25
200435-5	AN 3 5-6	Soil	01/21/2002	13:30	01/22/2002	09:25
200435-6	AN 3 8-9	Soil	01/21/2002	13:45	01/22/2002	09;25
200435-7	AN 3 14-15	Soil	01/21/2002	14:15	01/22/2002	09:25
200435-8	ANE 1 4-4.5	Soil	01/21/2002	15:55	01/22/2002	09:25
200435-9	ANE 3 4.5-6	Soil	01/21/2002	13:10	01/22/2002	09:25
200435-10	ANE 3 8-12	Soil	01/21/2002	14:30	01/22/2002	09:25
200435-11	ANE 3 14-15	Soil	01/21/2002	14:50	01/22/2002	09:25
					* * * * * * * * * * * * * * * * * * *	

# SAMPLE INFORMATION Date: 02/27/2002

Job Number.: 200571 Customer...: ROUX ASSOCIATES Attn.....: Scott Glash

:Laboratory: Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
200571-1	AN-6 / 6-8	Soil	02/19/2002	09:50	02/20/2002	09:20
2005,71-2	AN-6 / 10.5-11.5	Soil	02/19/2002	10:35	02/20/2002	09:20
200571-3	AN-6 / 13-15	Soil	02/19/2002	. 11:50	02/20/2002	09:20
200571-4	CN-10 / 4-6	Soil	02/19/2002	16:35	02/20/2002	09:20
200571-5	CN-10 / 8-10	Soil	02/19/2002	17:10	02/20/2002	09:20
200571-6	CN-10 / 12-14	Soil	02/19/2002	17:45	02/20/2002	09:20
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# SAMPLE INFORMATION: Date: 03/19/2002

Job Number.: 200703 Customer...: ROUX ASSOCIATES Attn.....: Scott Glash

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Eaboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
200703-1	AN-9/6-8	Soil	03/13/2002	08:15	03/13/2002	19:15
200703-2	AN-9/8-10	Soil	03/13/2002	08:50	03/13/2002	19:15
200703-3	AN-9/14-15	Soil	03/13/2002	09:40	03/13/2002	19:15
200703-4	AN-9N/5.5-7.5	Sail	03/13/2002	11:20	03/13/2002	19:15
200703-5	AN-9N/10-12	Soil	03/13/2002	11:45	03/13/2002	19:15
200703-6	AN-9N/12-14	Soil	03/13/2002	11:50	03/13/2002	19:15
200703-7	AN-10/7-8	Soil	03/13/2002	14:20	03/13/2002	19;15
200703-8	AN-10/8-10	Soil	03/13/2002	14:30	03/13/2002	19:15
200703-9	AN-10/14-16	Soil	03/13/2002	15:05	03/13/2002	19:15
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# SAMPLE INFORMATION Date: 03/27/2002

Job Number.: 200742 Customer...: ROUX ASSOCIATES Attn.....: Scott Glash

	taboratory Sample 10	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
Ì	200742-1	AN-11/7-8	Soil	03/19/2002	10:50	03/19/2002	19:25
	200742-2	AN-11/10-12	Soil	03/19/2002	11:00	03/19/2002	19:25
1	200742-3	AN-11/13.5-14.5	Soil	03/19/2002	11:20	03/19/2002	19:25
	200742-4	AN-12/4-5	Soil	03/19/2002	12:00	03/19/2002	19:25
	200742-5	AN-12/10-12	Soil	03/19/2002	12:20	03/19/2002	19:25
	200742-6	AN-12/12-13	Soil	03/19/2002	12:30	03/19/2002	19:25
							•

Sample Calculation:

Sample ID – SB-1,12-16 Compound - naphthalene

$$\frac{473114(40)500(20)}{23125} = 23125 = 23000$$

$$435339(0.964)2(15.0)0.65$$

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in the case narrative.

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Jeffrey C. Curran

Laboratory Manager

Det

# STL Report : 200316 ROUX-MGP



### Case Narrative

STL Connecticut

Sample Receipt - All samples were received in good condition and at the proper temperature.

Organic Extraction - Samples were extracted according to method 3541. No problems were encountered.

Semi-Volatile Organics - Semi-volatile organic samples were analyzed by capillary GC/MS according to NYSDEC '95 Protocols using guidance provided in Method 8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

A 2ul injection was used for all samples and standards. The instrument was calibrated at 10ng/ul (20 ng), 25 ng/ul(50 ng), 40ng/ul(80ng), 60ng/ul(120ng) and 80ng/ul(160ng). Internal standards were added to all samples and standards were at 20ng/ul(40ng).

The Laboratory Sample ID's for the method blanks and LCS's on the forms 4,5,8 and the QC results forms are based on the Prep Batch. The Lab Sample ID on the surrogate recovery form is based on the analytical batch. For cross referencing purposes, the Prep Batch ID is also listed on the surrogate recovery form.

After discussions with the client, it was decided that the data quality objectives for this project could be met by starting the sample analysis at a 1:20 dilution.

The following samples were analyzed at dilutions due to the presence of high levels of target compounds:

Sample ID	Dilution
SB-1,6-7	1:100
SB-1,8-10	1:20
SB-1,12-16	1:20
SB-2,7-8	1:100
SB-2,9-10	1:20
SB-2,12-16	1:20
SB-3,6-8	1:50
SB-3,8-12	1:50
SB-3,12-16	1:20

## STL Report : 200334 ROUX-MGP



## Case Narrative

Sample Receipt – All samples were received in good condition and at the proper temperature.

Semi-Volatile Organics - Semi-volatile organic samples were analyzed by capillary GC/MS according to NYSDEC '95 Protocols using guidance provided in Method 8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

A 2ul injection was used for all samples and standards. The instrument was calibrated at 10ng/ul (20 ng), 25 ng/ul(50 ng), 40ng/ul(80ng), 60ng/ul(120ng) and 80ng/ul(160ng). Internal standards were added to all samples and standards were at 20ng/ul(40ng).

The Laboratory Sample ID's for the method blanks and LCS's on the forms 4,5,8 and the QC results forms are based on the Prep Batch. The Lab Sample ID on the surrogate recovery form is based on the analytical batch. For cross referencing purposes, the Prep Batch ID is also listed on the surrogate recovery form.

After discussions with the client, it was decided that the data quality objectives for this project could be met by starting the sample analysis at a 1:20 dilution.

Sample Calculation:

Sample ID – SB4 4-5 FEET Compound - naphthalene

$$\frac{703730(40)500(20)}{342462(0.964)2(15.8)0.85} = 31744 = 32000 \text{ ug/kg}$$

The following samples were analyzed at dilutions due to the presence of high levels of target compounds:

Sample ID	Dilution
SB7 9-10	1:400
SB7 12-13	1:500
SB8 7-8	1:50
SB9 5-6	1:800
SB10 7-8	1:400
SB10 9-10	1:200
SB11 7-8	1:100
SB11 11-12	1:500

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in the case narrative.

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Jeffrey C, Curran

Laboratob Manager

Date

## STL Report: 200442 ROUX-MGP



### Case Narrative

Sample Receipt - All samples were received in good condition and sate care temperature.

Organic Extraction - Samples were extracted according to method 3541. No problems were encountered.

Semi-Volatile Organics - Semi-volatile organic samples were analyzed by capillary GC/MS according to NYSDEC '95 Protocols using guidance provided in Method 8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

A 2ul injection was used for all samples and standards. The instrument was calibrated at 10ng/ul (20 ng), 25 ng/ul(50 ng), 40ng/ul(80ng), 60ng/ul(120ng) and 80ng/ul(160ng). Internal standards were added to all samples and standards were at 20ng/ul(40ng).

After discussions with the client, it was decided that the data quality objectives for this project could be met by starting the sample analysis at a 1:20 dilution.

The following samples were analyzed at dilutions due to the presence of high levels of target compounds:

Sample ID	Dilution
CNE3, 7-8	1:80
CNE3, 8-10	1:40
CNE3, 15-16	1:400

Sample Calculation:

Sample ID – DS2, 8-12 Compound – naphthalene

$$\frac{1958544(40)500(20)}{2000} = 27563 = 28000 \text{ ug/kg}$$

$$1321862(0.879)2(15.1)0.81$$

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in the case narrative.

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Jeffrey Curran

Laboratory Manager

## STL Report : 200447 ROUX-MGP



#### Case Narrative

Sample Receipt - All samples were received in good condition and at the proper temperature.

Organic Extraction - Samples were extracted according to method 3541. Samples CNW3 6-7, SB-15 SW 15-16 and CN3 12-16 would not concentrate to a final volume of 0.5 ml and so were brought to a final volume of 1 ml. Sample CNW3 12-16 would not concentrate to a final volume of 0.5 ml and so was brought to a final volume of 2 ml.

Semi-Volatile Organics - Semi-volatile organic samples were analyzed by capillary GC/MS according to NYSDEC '95 Protocols using guidance provided in Method 8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

A 2ul injection was used for all samples and standards. The instrument was calibrated at 10ng/ul (20 ng), 25 ng/ul(50 ng), 40ng/ul(80ng), 60ng/ul(120ng) and 80ng/ul(160ng). Internal standards were added to all samples and standards were at 20ng/ul(40ng).

After discussions with the client, it was decided that the data quality objectives for this project could be met by starting the sample analysis at a 1:20 dilution.

The following samples were analyzed at dilutions due to the presence of high levels of target compounds:

Sample ID	Dilution
CNW3 9-10	1:200
CNW3 12-16	1:1000
DN2 8-9	1:25
SB-15 SW 6-7	1:200
SB-15 SW 8-12	1:100
SB-15 SW 15-16	1:800
CN3 12-16	1:500

Sample Calculation:

Sample ID – CNW3 6-7 Compound – naphthalene

> 5369656(40)1000(20) = 128936 = 130000 ug/kg 1707677(0.856)2(15.4)0.74

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in the case narrative.

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Jeffrey Q. Curran

Laboratory Manager

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## STL Report : 200367 ROUX-MGP



#### Case Narrative

Sample Receipt - All samples were received in good condition and sate of the proper temperature.

Organic Extraction - Samples were extracted according to method 3550B. No problems were encountered.

Semi-Volatile Organics - Semi-volatile organic samples were analyzed by capillary GC/MS using guidance provided in Method 8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

A 2ul injection was used for all samples and standards. The instrument was calibrated at 10ng/ul (20 ng), 25 ng/ul(50 ng), 40ng/ul(80ng), 60ng/ul(120ng) and 80ng/ul(160ng). Internal standards were added to all samples and standards were at 20ng/ul(40ng).

After discussions with the client, it was decided that the data quality objectives for this project could be met by starting the sample analysis at a 1:20 dilution.

Sample A02 4.5-5.5 was analyzed at a 1:800 dilution due to the presence of high levels of target compounds. Samples A02 12-16, SB7-S2 4-6 and SB7-N2 4-5 were analyzed at a 1:50 dilution due to the presence of high levels of target compounds.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in the case narrative.

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Jeffrey C. Curran

Laboratory Manager

Date

## STL Report : 200382 ROUX-MGP



### Case Narrative

Sample Receipt - All samples were received in good condition and all ame proper temperature.

Organic Extraction - Samples were extracted according to method 3550B. Samples BOW-2 8-12 and BOW-2 12-13 would not concentrate to a final volume of 1 ml, and so they were brought to a final volume of 2 mls.

Semi-Volatile Organics - Semi-volatile organic samples were analyzed by capillary GC/MS according to NYSDEC '95 Protocols using guidance provided in Method 8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

A 2ul injection was used for all samples and standards. The instrument was calibrated at 10ng/ul (20 ng), 25 ng/ul(50 ng), 40ng/ul(80ng), 60ng/ul(120ng) and 80ng/ul(160ng). Internal standards were added to all samples and standards were at 20ng/ul(40ng).

After discussions with the client, it was decided that the data quality objectives for this project could be met by starting the sample analysis at a 1:20 dilution.

The following samples were analyzed at dilutions due to the presence of high levels of target compounds:

Sample ID	Dilution
BW-2, 7-8	1.200
BW-2, 8-8.5	1:100
BOW-2 6-8	1.400
BOW-2 8-12	1:800
BOW-2 12-13	1:400

Sample Calculation:

Sample ID – BOE-E-2, 8-10 Compound - naphthalene

$$\frac{57595(40)1000(20)}{925803(0.976)2(30.1)0.68} = 1245 = 1200 \text{ ug/kg}$$

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in the case narrative.

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Jeffrey Curran

Laboratory Manager

Date 29, 2002

## STL Report : 200514 ROUX-MGP



## Case Narrative

Sample Receipt - All samples were received in good condition and at the proper temperature.

Organic Extraction - Samples were extracted according to method 3550B. Sample CN-9 5-6 would not concentrate to a final volume of 1 ml and so was brought to a final volume of 2 mls.

Semi-Volatile Organics - Semi-volatile organic samples were analyzed by capillary GC/MS according to NYSDEC '95 Protocols using guidance provided in Method 8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

A 2ul injection was used for all samples and standards. The instrument was calibrated at 10ng/ul (20 ng), 25 ng/ul(50 ng), 40ng/ul(80ng), 60ng/ul(120ng) and 80ng/ul(160ng). Internal standards were added to all samples and standards were at 20ng/ul(40ng).

After discussions with the client, it was decided that the data quality objectives for this project could be met by starting the sample analysis at a 1:20 dilution.

Sample CN-9 5-6 was analyzed at a 1:100 dilution and sample CN-9 12-14 was analyzed at a 1:200 due to the presence of high levels of target compounds.

All samples were analyzed without any apparent problems.

Sample Calculation:

Sample ID – CN-6 14-15 Compound - Naphthalene

$$\frac{(460270)(40)(1000)(20)}{(2040801)(.784)(2.0)(30.1)(.759)} = 5036 = 5000 \text{ ug/kg}$$

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in the case narrative.

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Aub 1a, 2002 Date

Jeffrey & Curran

Laboratory Manager

## STL Report : 200527 ROUX-MGP



### Case Narrative

Sample Receipt - All samples were received in good condition and at the proper temperature.

Organic Extraction - Samples were extracted according to method 3550B. Samples CN-4 4-6, CN-4 8-10, CN-4 12-14, AN-4 4-6 and AN-4 14-16 would not concentrate to a final volume of 1 ml and so were brought to a final volume of 2 mls.

Semi-Volatile Organics - Semi-volatile organic samples were analyzed by capillary GC/MS according to NYSDEC '95 Protocols using guidance provided in Method 8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

A 2ul injection was used for all samples and standards. The instrument was calibrated at 10ng/ul (20 ng), 25 ng/ul(50 ng), 40ng/ul(80ng), 60ng/ul(120ng) and 80ng/ul(160ng). Internal standards were added to all samples and standards were at 20ng/ul(40ng).

After discussions with the client, it was decided that the data quality objectives for this project could be met by starting the sample analysis at an effective 1:20 dilution.

Sample CN-4, 4-6 was analyzed at a 1:400 dilution, sample CN-4,12-14 at a 1:200 dilution, and sample AN-4, 4-6 at a 1:200 due to the presence of high levels of target compounds.

The method blank, 3041-1MB, was analyzed and reported from three different instruments. The analysis from 02/11/2002 (Instrument "P") had one surrogate out of recovery criteria, but within laboratory sample acceptance criteria.

Sample Calculation:

Sample ID – AN-4, 4-6 Compound - Naphthalene

$$\frac{(1107250)(40)(2000)(50)}{(633063)(.970)(2.0)(30.0)(.84)} = 143105 = 140000 \text{ ug/kg}$$

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in the case narrative.

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Jeffrey g. Curran

Laboratory Manager

Date

## STL Report : 200538 <u>ROUX-MGP</u>



### Case Narrative

Sample Receipt – All samples were received in good condition and at the proper temperature.

Organic Extraction - Samples were extracted according to method 3541. No problems were encountered. Due to limited sample volume, samples AN-5, 13-15 and CN-8,12-14 were extracted using half the usual volume and brought to half the usual final volume. The analyst inadvertently added full surrogate volume to the samples.

Semi-Volatile Organics - Semi-volatile organic samples were analyzed by capillary GC/MS according to NYSDEC '95 Protocols using guidance provided in Method 8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

A 2ul injection was used for all samples and standards. The instrument was calibrated at 10ng/ul (20 ng), 25 ng/ul(50 ng), 40ng/ul(80ng), 60ng/ul(120ng) and 80ng/ul(160ng). Internal standards were added to all samples and standards were at 20ng/ul(40ng).

After discussions with the client, it was decided that the data quality objectives for this project could be met by starting the sample analysis at a 1:20 dilution.

Sample AN-5, 13-15 was analyzed at a 1:500 dilution due to the presence of high levels of target compounds.

Due to the surrogate spiking problems in the organic extraction department, the surrogate recoveries for sample AN-5, 13-15 and CN-8, 12-14 have been adjusted to reflect the actual amount added. The volume adjustments in extractions do not cause an elevation of the POLs.

Two acid surrogates were outside recovery limits in the LCS. These surrogates do not affect the target compounds therefore the results have been reported.

The spike recovery for many of the target compounds were above recovery limits for the first analysis of the LCS. The LCS was reanalyzed with most compounds recovering within criteria. The compounds 2-methylnaphthalene, acenaphthene and fluorene were above the limits. The second analysis, which meets laboratory acceptance criteria, has been reported.

Sample Calculation:

Sample ID – CN-8,8-10 Compound - phenanthrene

 $\frac{(32546)(40)(1000)(20.0)}{(434768)(1.002)(2.0)(30.4)(.699)} = 1406 = 1400 \text{ ug/kg}$ 

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in the case narrative.

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Jeffrey C. Curran

Laboratory Manager

Date

## STL Report : 200580 ROUX-MGP



### Case Narrative

Sample Receipt - All samples were received in good condition and all the proper temperature.

Organic Extraction - Samples were extracted according to method 3550B. Samples CN-7 / 8-10 and CN-7 / 12-14 contained free water, which was decanted prior to extraction. No other problems were encountered.

Semi-Volatile Organics - Semi-volatile organic samples were analyzed by capillary GC/MS according to NYSDEC '95 Protocols using guidance provided in Method 8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

A 2ul injection was used for all samples and standards. The instrument was calibrated at 10ng/ul (20 ng), 25 ng/ul(50 ng), 40ng/ul(80ng), 60ng/ul(120ng) and 80ng/ul(160ng). Internal standards were added to all samples and standards were at 20ng/ul(40ng).

After discussions with the client, it was decided that the data quality objectives for this project could be met by starting the sample analysis at an effective 1:20 dilution.

Sample Calculation:

Sample ID – CN-7/4-6 Compound - Pyrene

$$(262554)(40)(1000)(20) = 2591 = 2600 \text{ ug/kg}$$

$$(1393631)(1.343)(2.0)(30.5)(.71)$$

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in the case narrative.

Jeffrey G. Curran . Laboratory Manager

## STL Report : 200617 ROUX-MGP



#### Case Narrative

Sample Receipt – All samples were received in good condition and at the proper temperature.

Semi-Volatile Organics - Semi-volatile organic samples were analyzed by capillary GC/MS according to NYSDEC '95 Protocols using guidance provided in Method 8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

A 2ul injection was used for all samples and standards. The instrument was calibrated at 10ng/ul (20 ng), 25 ng/ul(50 ng), 40ng/ul(80ng), 60ng/ul(120ng) and 80ng/ul(160ng). Internal standards were added to all samples and standards were at 20ng/ul(40ng).

After discussions with the client, it was decided that the data quality objectives for this project could be met by starting the sample analysis at an effective 1:20 dilution.

Samples CN-10S/ 13-15 and AN-6S/4-6 were analyzed at a 1:400 dilution, sample AN-6N/4-6 at a 1:200 dilution, sample AN-6N/ 8-10 at a 1:100, and AN-6S/10-11.5 at a 1:80 due to the presence of high levels of target compounds.

Sample Calculation:

Sample ID – CN-10/8-10 Compound - Naphthalene

$$\frac{(238713)(40)(1000)(20)}{(857599)(1.037)(2.0)(30.5)(.61)} = 5770 = 5800 \text{ ug/kg}$$

Jeffrey G Curran

# STL Report : 200625 ROUX-MGP



### Case Narrative

Sample Receipt - All samples were received in good condition and at the proper temperature.

Semi-Volatile Organics - Semi-volatile organic samples were analyzed by capillary GC/MS according to NYSDEC '95 Protocols using guidance provided in Method 8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

A 2ul injection was used for all samples and standards. The instrument was calibrated at 10ng/ul (20 ng), 25 ng/ul(50 ng), 40ng/ul(80ng), 60ng/ul(120ng) and 80ng/ul(160ng). Internal standards were added to all samples and standards were at 20ng/ul(40ng).

After discussions with the client, it was decided that the data quality objectives for this project could be met by starting the sample analysis at an effective 1:20 dilution.

Sample CN-11/6-8 was analyzed at a 1:100 dilution and sample CN-12/4-6 at a 1:40 dilution, due to the presence of high levels of target compounds.

Sample Calculation:

Sample ID – CN-12/4-6 Compound - Naphthalene

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in the case narrative.

Page 1 - Narrative for Login No. 200625
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Jeffrey C. Curran

Laboratory Manager

March 7,2002

Date

### STL Report : 200340 ROUX-MGP



#### Case Narrative

Sample Receipt - All samples were received in good condition and all the proper temperature.

Organic Extraction - Samples were extracted according to method 3541. Samples contained free water, which was decanted prior to extraction. Samples SB14 7-8 and SB17 5-6 would not concentrate to a final volume of 0.5 ml and so were brought to a final volume of 1 ml. Sample SB18 5-6 would not concentrate to a final volume of 0.5 ml and so was brought to a final volume of 2 mls.

Semi-Volatile Organics - Semi-volatile organic samples were analyzed by capillary GC/MS according to NYSDEC '95 Protocols using guidance provided in Method 8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

A 2ul injection was used for all samples and standards. The instrument was calibrated at 10ng/ul (20 ng), 25 ng/ul(50 ng), 40ng/ul(80ng), 60ng/ul(120ng) and 80ng/ul(160ng). Internal standards were added to all samples and standards were at 20ng/ul(40ng).

After discussions with the client, it was decided that the data quality objectives for this project could be met by starting the sample analysis at a 1:20 dilution.

The following samples were analyzed at dilutions due to the presence of high target compounds:

			•	
	SB13, 6-7	1:50	SB13, 10-12	1:50
	SB14, 7-8	1:500	SB14, 8-12	1:400
	SB14, 13-14	1:1000		1:1000
.	SB17, 5-6	1:1000	SB18, 5-6	1:2000
ĺ	SB19, 11-12	1:100	SB20, 7-8	1:40

Sample Calculation:

Sample ID – SB14, 7-8 Compound - naphthalene

> (3208724)(40)(1000)(500) = 323238 = 320000 ug/kg (875906)(.945)(2)(15.2)(.789)

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in the case narrative.

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Jeffrey C. Curran

Laboratory Manager

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# STL Report: 200348 ROUX-MGP



### Case Narrative

Sample Receipt – All samples were received in good condition and all the pitcher temperature.

Organic Extraction - Samples were extracted according to method 3541. No problems were encountered.

Semi-Volatile Organics - Semi-volatile organic samples were analyzed by capillary GC/MS according to NYSDEC '95 Protocols using guidance provided in Method 8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

A 2ul injection was used for all samples and standards. The instrument was calibrated at 10ng/ul (20 ng), 25 ng/ul(50 ng), 40ng/ul(80ng), 60ng/ul(120ng) and 80ng/ul(160ng). Internal standards were added to all samples and standards were at 20ng/ul(40ng).

After discussions with the client, it was decided that the data quality objectives for this project could be met by starting the sample analysis at a 1:20 dilution.

The following samples were analyzed at dilutions due to the presence of high levels of target compounds:

Sample ID	Dilution	
AS2 6-8	1:200	
AS2 8-12	1:200	
ASW2 7-8	1:400	
AOW2 5-6	1:400	
ASE2 7-8	1:400	

Sample Calculation:

Sample ID – ASW2 8-12 Compound - phenanthrene

Jeffrey C. Curran

## STL Report: 200435 ROUX-MGP



### Case Narrative

Sample Receipt - All samples were received in good condition and at care proper temperature.

Organic Extraction - Samples were extracted according to method 3541. Samples SB5 5-7, SB-5 8-12, AN-3 5-6, AN-3 8-9, AN-3 14-15, ANE-3 4.5-6, ANE-3 8-12 and ANE-3 14-15 would not concentrate to a final volume of 0.5 ml and so were brought to a final volume of 1 ml. Sample ANE-1 4-4.5 would not concentrate to a final volume of 0.5 ml and so was brought to a final volume of 2 ml.

Semi-Volatile Organics - Semi-volatile organic samples were analyzed by capillary GC/MS according to NYSDEC '95 Protocols using guidance provided in Method 8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

A 2ul injection was used for all samples and standards. The instrument was calibrated at 10ng/ul (20 ng), 25 ng/ul(50 ng), 40ng/ul(80ng), 60ng/ul(120ng) and 80ng/ul(160ng). Internal standards were added to all samples and standards were at 20ng/ul(40ng).

After discussions with the client, it was decided that the data quality objectives for this project could be met by starting the sample analysis at a 1:20 dilution.

The following samples were analyzed at dilutions due to the presence of high levels of target compounds:

SB5 5-7	1:50	AN 3 5-6	1:500
AN 3 8-9	1:50	AN 3 14-15	1:400
ANE 1 4-4.5	1:2000	ANE 3 4.5-6	1:100

Sample Calculation:

Sample ID – SB5 12-13 Compound - Naphthalene

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in the case narrative.

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Jeffrey C. Curran

### STL Report: 200571 ROUX-MGP



#### Case Narrative

Sample Receipt - All samples were received in good condition and attemperature.

Organic Extraction - Samples were extracted according to method 3550B. Samples AN-6 / 6-8 and AN-6 / 10.5-11.5 would not concentrate to 1 ml, and so were brought to a final volume of 5 mls.

Semi-Volatile Organics - Semi-volatile organic samples were analyzed by capillary GC/MS according to NYSDEC '95 Protocols using guidance provided in Method 8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

A 2ul injection was used for all samples and standards. The instrument was calibrated at 10ng/ul (20 ng), 25 ng/ul(50 ng), 40ng/ul(80ng), 60ng/ul(120ng) and 80ng/ul(160ng). Internal standards were added to all samples and standards were at 20ng/ul(40ng).

After discussions with the client, it was decided that the data quality objectives for this project could be met by starting the sample analysis at an effective 1:20 dilution.

Sample CN-10/4-6 was analyzed at a 1:400 dilution, sample AN-6/10.5-11.5 at a 1:200 dilution, sample AN-6/6-8 at a 1:200, and AN-6/13-15 at a 1:25 due to the presence of high levels of target compounds.

The method blank, 3327-1MB, was analyzed and reported from two different instruments.

Sample Calculation:

Sample ID – CN-10/8-10 Compound - Naphthalene

$$\frac{(1195597)(40)(1000)(20)}{(1457804)(1.011)(2.0)(30.0)(.76)} = 14231 = 14000 \text{ ug/kg}$$

Jeffrey C. Curran

Laboratory Manager

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# STL Report : 200703 ROUX-MGP



### Case Narrative

Sample Receipt - All samples were received in good condition and at the proper temperature.

Organic Extraction - Samples were extracted according to method 3550B. No problems were encountered.

Semi-Volatile Organics - Semi-volatile organic samples were analyzed by capillary GC/MS according to NYSDEC '95 Protocols using guidance provided in Method 8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

A 2ul injection was used for all samples and standards. The instrument was calibrated at 10ng/ul (20 ng), 25 ng/ul(50 ng), 40ng/ul(80ng), 60ng/ul(120ng) and 80ng/ul(160ng). Internal standards were added to all samples and standards were at 20ng/ul(40ng).

After discussions with the client, it was decided that the data quality objectives for this project could be met by starting the sample analysis at a 1:20 dilution.

Sample AN-9/6-8 was analyzed at a 1:50 dilution due to the presence of high levels of target compounds.

Sample Calculation:

Sample ID - AN-10/8-10 Compound - Naphthalene

$$\frac{(96932)(40)(1000)(20)}{(851279)(0.886)(2.0)(30.3)(.812)} = 2089 = 2100 \text{ ug/kg}$$

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in the case narrative.

Page 1 - Narrative for Login No. 200703 STL Connecticut is a part of Severn Trent Laboratories, Inc.

Jeffrey C. Curran

Laboratory Manager

Page 2 - Narrative for Login No. 200703

# STL Report : 200742 ROUX-MGP



### Case Narrative

Sample Receipt – All samples were received in good condition and attended the proper temperature.

Organic Extraction - Samples were extracted according to method 3550B. No problems were encountered.

Semi-Volatile Organics - Semi-volatile organic samples were analyzed by capillary GC/MS according to NYSDEC '95 Protocols using guidance provided in Method 8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

A 2ul injection was used for all samples and standards. The instrument was calibrated at 10ng/ul (20 ng), 25 ng/ul(50 ng), 40ng/ul(80ng), 60ng/ul(120ng) and 80ng/ul(160ng). Internal standards were added to all samples and standards were at 20ng/ul(40ng).

After discussions with the client, it was decided that the data quality objectives for this project could be met by starting the sample analysis at a 1:20 dilution.

Sample AN-12/4-5 had one surrogate out of recovery criteria, but within laboratory sample acceptance criteria.

Sample Calculation:

Sample ID – AN-12/4-5 Compound - Chrysene

> (44119)(40)(1000)(20) = 2169 = 2200 ug/kg (366997)(0.796)(2.0)(30.5)(.913)

Jeffrey C. Curran